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ABSTRACT

The language use and interactions of limited English proficient Chinese American first graders and their two teachers were analyzed. One teacher was bilingual; the other was not. The study consisted of three phases: identification of speech events, recording and analysis of speech acts during teacher-directed lessons, and followup of target students in second grade. The monolingual English teacher was found to differentially treat the students who were less English proficient, using less effective questioning strategies and less clear instructions. The bilingual teacher was consistent and used Chinese during English reading instruction for a variety of carefully chosen purposes. In regard to student language use, it was found that student language varied less when comparing their communication with the two teachers, as English proficiency increased. The students targeted for followup appeared to have no problem making the transition to second grade. (Author/RW)

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# LEARNING TO USE A NEW LANGUAGE: LANGUAGE FUNCTIONS AND USE BY FIRST GRADE CHINESE-AMERICANS

FINAL REPORT

Larry F. Guthrie
Principal Investigator

With assistance from
Nai-Chu Ding Lai

U.S. DEPARTMENT OF EDUCATION
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ABSTRACT

This study considered in detail the interaction and language use of a group of limited-English-proficient first-grade Chinese-American students and their two teachers, one bilingual and one not. The goals were (1) to investigate patterns of teacher and student language use across the two contexts, and (2) to determine how teachers' proficiency in the students' first language contributed to successful instruction.

The study was conducted in three phases. In the first, teachers, students and speech events were identified. In Phase Two, audiorecordings of teacher-directed lessons were made in the two classrooms with the same groups of students. Recorded data were transcribed, coded according to speech-acts, and analyzed both quantitatively and qualitatively. In Phase Three, target students were followed into their second grade classroom, where comparable procedures were followed.

The monololingual English teacher was found to provide differential treatment to those students least proficient in English. He employed less effective questioning strategies and was less clear about tasks, instructions, and rules. Both bilingual teachers were consistent across groups. The bilingual first grade teacher carefully selected the occasions when she used Chinese in teaching English reading, and she used it for a variety of purposes. Target students appeared to have no problem crossing the border from first to second grade.

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# CHAPTER ONE

# INTRODUCTION

Recent research has shown that the ways children and teachers use language in classrooms can contribute to children's acquisition of both social and academic skills (Cazden, John & Hymes, 1972; Cherry, 1981; Green, 1982; Green & Wallat, 1981; Trueba, G. Guthrie & Au, 1981; Wilkinson, 1982). When students and teachers meet together in a classroom, their communication is done primarily through the medium of language; how their interaction is organized in part determines whether learning takes place. In this chapter, an overview of research from this perspective is presented, with special attention to the approach taken in the present study.

## Language Use in Classrooms

In instructional contexts, teachers are responsible for orchestrating their interactions with students, including not only the presentation of academic content, but also the ways in which student turns are distributed and order maintained (Green, 1983). They determine, for example, whether students bid for turns, how correct responses are rewarded, what sorts of questions are asked, and what behaviors are sanctioned. Previous research in this area has looked at several aspects of classroom interaction such as the rules for questioning and answering, rules for turn-taking, the types of questions asked and the reponses elicited, and interruptions during small group instruction. Research has examined the possible effects of teacher differences, variation in students' communicative competence, student group status, and so on.

In general, the focus of this research has been less on the strictly linguistic aspects of language than on the uses to which language is put and the functions it serves. The traditional notion of second language proficiency held that knowledge of a language involves the mastery of particular phonological and grammatical features. More recently, however, Hymes (1974) and others have pointed out that the ability to manipulate linguistic rules or mimic native speaker phonology does not insure effective communication in the second language. Thus, how teachers and students use language, rather than particular linguistic aspects of their speech, may have more to do with the way children learn, and by the same token, the miscommunication, misunderstanding, and educational difficulty students encounter (Guthrie & Hall, 1983; Hymes, 1972; Gumperz, 1981).

A major focus of research from this perspective has been on the possible mismatch between how language is used at home and at school. If there is a discontinuity between the students' home

language use and that required for success at school, then the opportunities for success for those students are reduced (Guthrie & Hall, 1983; Hall & Guthrie, 1982). Students of different cultural and linguistic backgrounds, for example, act and use language according to the rules of their community and cuture while at home; in the school, a different set of rules is operative.

Even learning to read in school is in many respects an interactional process. Whereas reading for adults is usually a solitary endeavor -- they read silently to themselves -- reading for children most often takes place in a group (Cazden, 1979; Guthrie and Hall, in press). The degree to which interactions within that group are compatible with the students' native ways of communicating and organizing interactions should facilitate learning; the degree to which miscommunication is minimized should also contribute to student success.

## Theoretical and Methodological Issues

The study of language use in classrooms has in recent years become an interdisciplinary endeavor engaging scholars from a variety of fields: anthropology, education, linguistics, psychology, and sociology. Cross-fertilization of ideas and approaches has become so pervasive that most researchers actually span several disciplines in their work. While they may differ somewhat in scholarly background, perspective, and method, certain themes run through most of their work.

A common assumption of research from this perspective is that the functions and uses of language and other communicative means are relative to particular cultures, and even subcultures. Languages vary, for example, in the amount and way in which they are integrated into a culture (Hymes, 1974), and ways of speaking, gestures, songs, touching, and other means of communication may occupy different positions in one culture or another so that the nature of communicative competence varies. What we use speech to communicate, another culture may communicate with gesture, or what is an appropriate way of speaking in a given context for one culture may be unacceptable in another. Although sentences may be translated exactly on a grammatical level, because of intervening cultural factors, they may be non-equivalent semantically. A particular speech act may have multiple functions in context, and the particular function(s) which the speaker intends will depend on a number of possible factors relating to the context, topic and purpose of the interaction.

This theoretical perspective naturally has implications for the methodological approach of the research. Ervin-Tripp and Mitchell-Kernan (1977) have identified five common notions affecting method. The majority of classroom language studies currently take these into account. First, the data source for studies of conversation or children's language should be natural language in context. Traditional methods of language study, such as

interviews and introspection have proved inadequate. Research has shown that for children (and adults), the interview situation tends to cause the subject's speech to shift toward a more formal register (Labov, 1972; Ervin-Tripp & Mitchell-Kernan, 1977). Self report is also suspect. In a recent example cited by Legarretta (1981), for instance, teachers were asked to estimate the relative amounts of English and Spanish they used in the classroom. They reported using each language to an equal degree, but subsequent observations showed English was actually used nearly 75 percent of the time.

Researchers, then, have two alternatives. The first is to observe language in use and make use of on-the-spot coding or note-taking. The most popular observational system for classrooms is that of Flanders (1970), but there is a wide variety of observational schemes used in educational research and evaluation. Most of these, however, do not focus on language and language use per se. The Flanders system has been used in modified form for bilingual classrooms (Legarretta, 1979). More recently, structured observation instruments for the specific purpose of examining language use have been developed, such as those used in the Significant Bilingual Instructional Features Study (Tikunoff, 1983). In the Time Allocation Procedure (TAP), for example, the observer codes instances of language change, recording the addressee (individual, small group, or whole group) and the ostensible function of the first statement (discipline, procedures, or instruction). While such a system may be useful for estimates of language use at a somewhat gross level, it has serious limitations when it comes to describing discourse. Chief among them is the basic fact that all information-gathering is done on-the-spot, and restricted to a fixed set of categories. These schemes are thus inadequate for capturing the more subtle aspects of language-in-use and multiple functions of language. The complexities of social interaction are so great that no observers, no matter how astute, can see everything. They can take note of even less, so that actually very little of what goes on is captured. For these reasons and others, the use of structured observations as a means for describing discourse has been widely criticized (Labov & Fanshel, 1977; Mehan, 1979).

A second alternative is to utilize some sort of recording device, either audiotape, videotape, or film (see Erickson & Wilson, 1982). In this way, a permanent record of an interaction is produced which will allow repeated viewing or listening. In Erickson and Schultz's method (1981), for instance, researchers may view videotapes scores of times in the course of the analysis. In addition, by using more than one microphone or camera, different perspectives on the same interaction can be made available. This is not to say, of course, that the use of mechanical devices represents a perfect method; the process is time-consuming and the data sample is thereby necessarily limited. For the study of discourse, however, it appears that the use of recordings to some degree is required.

In the present study, a combination of these techniques was employed. First, descriptive fieldnotes were taken in the first phase of the study in order that appropriate target students and speech events for later recording could be identified. During the second and third phases, audio-tape recordings of the natural speech of target children and teachers were made and supplmented by fieldnotes. While one researcher operated the recording equipment and noted speakers, another described the contexts of actions and activities.

The second theme identified by Ervin-Tripp and Mitchell-Kernan (1977) was that the study of discourse includes elements of language beyond the sentence level. Traditional linguistic studies saw no paritcular reason to look at stretches of language longer that the sentence; neither did the early transformational grammarians (Chomsky, 1965). More recently, however, it has become apparent that multiple constraints beyond the sentence level operate on the production of speech. Sociolinguistic study, for example, has moved to a focus on the speech event or speech act. As Hymes (1974) put it, "in seeking structures, Saussure is concerned with the word, Chomsky with the sentence, the ethnography of speaking with the act of speech" (p.90).

In this study, the focus was on both the speech event and the speech act. First, through naturalistic observation, typical speech situation in the two classes were identified. Then, through more structured observations, the participant structures of various speech events (lessons) were determined and selected for study. Finally, by using the Conversational-act system, we were able to consider elements of discourse beyond the sentence or utterance level. While this system (to be described in more detail later) codes individual utterances, the coding is done in context, both linguistic and situational.

This brings us to the third theme in the study of children's discourse (Ervin-Tripp & Mitchell-Kernan, 1977). Most research on language use today recognizes that features of the social and situational context affect linguistic rules and output (for a discussion, see Guthrie & Hall, 1983).

In the mutual construction of their discourse, actors make selections about what they want to say next (semantic options), about how to say it (social options), and about the form it will take (linguistic options). At the basis of all these choices, and impinging upon them, is a series of factors which can act as constraints. At the most general level, these include social and cultural facts such as social status and cultural norms. At the most narrow level are facts within the interaction itself, such as particualr prosodic or phonological variations.

The various constraints do not operate in isolation, however; all are interdependent and mutually interacting. The influence of broader constraints like culture, in a sense, filters through every other level and is simultaneously experienced in terms of

the situation, social context, and task. Similarly, more local constraints such as the task always operate in a context of society, culture, and situation, for one cannot be engaged in a task outside of his or her culture, society, or some situation.

In the process of interaction, the actor makes lexical, grammatical, phonological and prosodic selections for each instance of a speech act. All these together are made within the confines of the interaction as established by the actor's own interpretations and definitions of the ongoing environment, and in accordance with his knowledge of interactional facts and rules. As suggested earlier, actors also have at their disposal a wide variety of ways in which to say what they mean, and thereby carry out their purposes.

It is at the discourse level, then, that the effects of these selections, and in fact, of constraints, interpretations, knowledge, and definitions as well, are realized. It is also at this level that meaning is conveyed. Once again, in the present study, by coding utterances in context, the influence of these various constraints is captured.

The forth theme concerns the fact that linguistic rules are variable. For example, as shown definitively by Labov (1966), phonological rules vary according to the situation. It should not, however be assumed that there is any regular one-to-one correspondence between particular constraints or rules and particular discourse features. Constraints may operate singly or in combination and across the various discourse and linguistic levels. Factors of social status, for example, can just as well influence code choice as phonological variation; a contextualization cue as subtle as a rise in intonation can result in a change in code, definition of the situation, or phonological choice. It is not possible to specify exactly how these factors constrain interaction, primarily because they are all filtered through the perception and interpretation of interactants and are, in addition, out-of-awareness. As mentioned earlier, one can never be absolutely certain which factor constrained a particular interaction in a particular way, though an educated guess or approximation is possible. The degree to which certain facts influence interaction will naturally vary from one occassion to another. Even in the most ritualized or controlled of cases such as a marriage, a religious ceremony, or an experiment, there will be room for flexibility and variation at one level or another. How then is the researcher to account for them and on what basis?

The fifth theme suggested by Ervin-Tripp and Mitchell-Kernan is that conversational utterances can serve multiple functions in context, and that particular functions do not map on to structural features. For example, philosophers recognize two types of meaning, literal (sentence) meaning and non-literal (utterer's) meaning (Grice, 1975). The first is the meaning which an utterance has regardless of context; the second is the meaning a speaker imputes in a certain situation. Indirect speech acts are

examples of non-literal language use that occur in everyday conversations. In the right context, for example, when someone says "it's hot in here," he is not just commenting on the room temperature, but is indirectly telling someone to open a window. Teachers make frequent use of such devices as when they say, "I like the way Johnny is sitting." This comment not only serves to compliment Johnny, but at the same time reminds all the other students that they had better be quiet.

In the present study, we have tried to account for the multiple functions of language in two ways. First, as in the previous case, we have coded utterances in context -- with reference to tapes, transcripts and the memory of the coder, since data collectors conducted the coding as well. Second, the Conversational-act coding system allows for double coding so that two functions may be represented.

## Research on Cultural and Linguistic Minorities

Previous research on language use in the classroom has been done with children from several different cultural and ethnolinguistic groups. These have included Blacks (Cook-Gumperz, Gumperz & Simons, 1981; Michaels & Cook-Gumperz, 1979; Guthrie, 1981; McDermott, 1978); Hawaiians (Au, 1980; Boggs, 1972); Hebrew-speakers (Enright, Ramirez, & Jacobs, 1981-82); Hispanics (Carrasco, Vera & Cazden, 1981; Mehan, 1979; Moll, Diaz, Estrada, & Lopes, in press; Duran, 1981; Erickson, Cazden, Carrasco, & Guzman, 1979); and Native Americans (Mohatt & Erickson, 1981; Philips, 1972).

Effective use of language by teachers with limited-English-speaking children (LES) has been the subject of considerable debate. Much of the discussion has focused on the relative amounts of English and the students' first language a teacher should use. Some have attempted to prescribe the relative amounts of each language.

Legarretta-Marcaida (1981), for example, has suggested that for limited-and non-English-speaking children in grades K-2, teachers should use the students' primary language approximately 70 percent of the time. The English proportion can then gradually increased to about 50 percent in later grades.

Milk (1981) explored the "functional imbalance" in the use of English and Spanish. His thesis was that

> If a particular classroom is aiming toward truly equal development of both languages, then each language must be used by both teachers and students more or less equally for the full range of classroom functions. It is not sufficient, therefore, for the languages to be used an equal amount of time -- they must also be used to an equal extent to accomplish the principal pedagogical functions of the class. (Milk, 1981, p.13)

Some have suggested, further, that the use of students' first language and English should be separated in the classroom. Still others have recommended the almost exclusive use of English (Baker & deKanter, 1982).

Attention has also been given to comparison of teachers' instruction and language use across different student groups. Much of this work has concentrated on the differential treatment of students in lower groups (Good & Brophy, 1974; McDermott, 1976; Rist, 1973). Cherry (1978) conducted a comparative study of teachers' expectations across student communicative competence levels. Her finding was that while teachers' language use varied with student groups, between teacher effects were greater. This finding has been supported in the work of Enright, et al. (1981-82), who compared the language use of two teachers with the same group of students in a Hebrew-English bilingual situation.

In a study of Hispanic Americans, Moll, et al. (in press) examined the language use of two teachers, only one of whom spoke Spanish, with the same group of children. He found that the teacher who did not speak the students' first language provided lessons at a lower level of difficulty than did the Spanish-speaking teacher. Apparently, the Anglo teacher underestimated the Spanish-speaking students' abilities because he himself did not speak Spanish.

Mohatt and Erickson (1981) compared the cultural congruence of two teachers with their Native-American students. Only one teacher was of the same culture as the students, and the other had had little prior experience in teaching children from that culture. Both, however, were regarded as experienced and competent teachers. Using a microethnographic technique (Erickson & Schultz, 1981), Mohatt and Erickson videotaped a number of school lessons in each class. One focus of their analysis was upon the pacing, "doing the right things at the right time" (p. 112). Their conclusion was that the Native-American teacher and her students revealed a "shared sense of pacing" in their behavior that was at first absent in the other teacher's class (p. 112).

With the exception of the work by Fillmore (1981, 1982) and Pung Guthrie (1982, in press), language use of Chinese students and their teachers has been largely ignored. Further, the work that has been done has been at a more general, descriptive level. It is often assumed that because Asian-Americans have a reputation for high achievement, their children experience little educational difficulty. This attitude obscures the fact that large numbers of recent immigrants from Asian face serious problems in communicating and learning to speak and read English.

At present, very little is known about how Chinese-speaking children and their teachers mutually construct interactions. In this study, we examined the communicative acts of a group of such children and their teachers so that we might be able to describe what happens in their lessons and perhaps identify instructional and interactional approaches which are particularly effective.

## CHAPTER TWO

## OVERVIEW AND METHODS

### Overview

This study involved a detailed examination of the language use of a group of Chinese-American first-graders and their two teachers. While considerable information is available on language use in monolingual classrooms, and to a lesser extent, on that in Hispanic bilingual situations, very little is known about how Chinese children and their teachers construct interactions.

The focus of the research was a bilingual class of students which alternated each half-day between a Chinese bilingual teacher and a non-Chinese-speaking teacher. This provided the unique opportunity to examine the language of the same LES children with two different teachers. The first of these teachers not only spoke the students' first language, Cantonese, but was also of the same cultural background. A woman in her early twenties, she ahd immigrated to the U.S. at the age of nine. Both her Cantonese and English were native-like. The other teacher was an anglo male who had taught in Spanish-English bilingual programs, but had little prior experience with Chinese students.

### Research Questions

Three basic questions directed the research. The first of these sought an indepth description of the classroom interaction between Chinese-American children and their teachers. How do teachers orchestrate lessons and how, in turn, do students respond? What variation, in both teacher and student language, is found across student English language proficiency groups?

Second, we compared the interaction in the two classrooms. What differences occur between the ways in which the two teachers orchestrate lessons? What differences emerge in student language use? How do these differences compare across linguistic proficiency groups?

Third, we asked what variations in teacher and student language might be found when this group of children moved on to second grade. Did these students experience difficulty in crossing the "border" between first and second grade, or in adjusting to the rule system of the new teacher?

### Method

Sociolinguistic methods were used to seek answers to these questions and to uncover the ways in which Cantonese-speaking children and their teachers constructed their interactions and used language. The study was conducted in three phases. In the first phase, target

students and speech events (lessons) were identified. In the second phase recordings of sample lessons were collected, transcribed, and analyzed. The third phase involved additional recording in reading lessons after target students had progressed to second grade. The procedures employed within each phase are described in more detail below. First, however, is a description of the setting in which the study was conducted.

## Setting

The setting for the study was an elementary school with a predominantly Chinese population. The school was located near a large Chinatown community on the west coast.

The school is located in the heart of Chinatown situated between these two streets, in the middle of the block, on an incline of about 20 degrees. A half block below is one of the busiest streets in Chinatown. This street is so busy, in fact, that there was a controversy in the newspapers recently concerning the dense traffic and how to deal with it. The traffic consists mainly of delivery trucks, buses, and shoppers; and the situation gets so bad sometimes that a bus may sit for half an hour without moving. Most of the shops on this street are groceries, with a few restaurants, coffee shops, banks, and jewelry stores. It is generally believed that things are somewhat cheaper on this street than on the other streets of Chinatown. Above the school is another major street. It is less congested, and the shops there are supposed to be still cheaper. There are also a few parking garages and apartment houses, as well as a Chinatown Branch of the Public Library on this street.

There are two buildings at the Chinatown Elementary School, the main building and the new building. The main building was constructed in the 1920's; the new building was completed about 15 years ago. Each is four stories tall. That area not occupied by the school buildings is comprised of two asphalt playgrounds, neither very large.

There were approximately 644 students enrolled in Chinatown Elementary at the time of this study. The school population is relatively stable, but there are periodic influxes of new immigrant and refugee students from the Oriental Education Center where most new immigrants go first. Almost half the school population was Chinese; the remainder of the students were largely Spanish surname, other Oriental (primarily Vietnamese), and Black. Table 1 presents the figures for the ethnic breakdown of the school population. Because of the ethnic quota system operative within the district, the school is not officially "closed" to new Chinese students, except those who live within the most immediate neighborhood.

Table 1

Ethnic Summary of Chinatown Elementary School Population

| Ethnicity | Spanish Surname | Other White | Black | Chinese | Amer. Indian | Fili-pino | Other non-White | Tot |
|---|---|---|---|---|---|---|---|---|
| Total | 128 | 17 | 75 | 287 | 1 | 4 | 132 | 644 |
| % | 19.9 | 2.6 | 11.6 | 44.6 | .2 | .6 | 20.5 | 100 |

Within the Chinese community, the school has a good reputation. Most Chinese parents seem to feel more secure if their children are attending a school that is predominantly Chinese and has Chinese teachers. There have been reports of parents who submitted a falsified address, or used that of a relative, in order that their child might be allowed to attend the school.

Most of the Chinese students at Chinese Elementary are classified as either Limited-English-Speaking (LES) or Non-English-speaking (NES). These students, in turn, are placed in either a Bilingual or Regular Class. Table 2 presents the numbers of Cantonese speakers, their classification as either NES, LES, Bilingual (balanced) or English-Dominant and their class assignments.

Table 2

Classification and Assignment of Chinese Students

| | Assignment | | |
|---|---|---|---|
| Classification | Bilingual | Regular | Total |
| NES | 166 | 10 | 176 |
| LES | 76 | 1 | 77 |
| Bilingual | 8 | 0 | 8 |
| English-Dominant | 19 | 50 | 69 |

## Phase One

During Phase One, the site participating teachers, target students, and speech events were identified. Details on each of these tasks are given below.

### Subjects

Subjects were eleven first-grade Chinese-American students, selected on the basis of English language proficiency. Prior to data collection, each teacher was asked to rank all students in the class on a four-point scale of oral English language proficiency (Fuentes & Wisenbaker, 1979). The bilingual teacher also provided similar information on students' Chinese proficiency. These judgements were then

verified through observations of potential target students. In this way, five students ranked at the low end of the scale (1-2), four ranked at the middle of the scale (3), and two fluent English speakers were selected.

## Lessons

As mentioned above, the two participating teachers in the study taught in a half-day alternation bilingual program. Each teacher met with the students in the target class for half of each school day, and alternated between mornings and afternoons. One teacher was bilingual and biliterate in Chinese and English, and while the other spoke no Chinese, he did speak Spanish and had taught a self-contained Spanish bilingual class the year before. Both teachers had several years of experience.

Two types of lessons were selected for analysis in this report, Reading with the bilingual teacher and Oral Language in the Anglo teacher's class. Although the lesson content and focus differed somewhat across the teachers' lessons, they were in many respects comparable. For two weeks prior to taping, classroom observers took descriptive fieldnotes and coded for activity structures (Bossert, 1978). These two lessons were found to be compatible in that they were both teacher-directed, student membership was approximately the same, and both teachers organized lessons around a basic question/answer format. Descriptions of the typical organization of each teacher's lesson follow.

Reading. The bilingual teacher divided students into four instructional groups for Reading: Flintstones, Roadrunners, Bugs Bunnies, and Snoopies. Each group met with the teacher for 15 to 20 minutes during each reading period, rotating according to the schedule set up by the teacher.

Reading lessons are conducted in much the same way with each group. The teacher usually began by writing a list of vocabulary words on the board near the reading table. She then would introduce each word and ask students to read and say the words as a group. Individual students were then called on to read all the vocabulary words aloud. The next task for the reading lesson would involve using the student text or the accompanying story posters. Each poster contained a picture on the top and a story below. When she used the poster, the teacher would ask the students to look at the picture first, then ask them to describe the picture. Together, they would then read the story on the poster. When she used the book, she adopted the same approach as with the poster, beginning with a description of the picture, followed by reading. The final step in the typical reading lesson would be to ask the children to read the text silently, after which she asked them comprehension questions. To answer these, students were allowed to read an appropriate phrase or sentence from the text. Throughout the reading lesson, if students stumbled over a word, the teacher read it out and asked the student to repeat it.

Oral Language. The Anglo teacher divided his class for Oral Language into two instructional groups on the basis of oral English

proficiency, Low and a combination of Middle and High. However, during the Oral Language period, only that group being taught by the teacher remained in the classroom; the other group met with another instructor in a different room. The overall procedures employed with each group were much the same.

The Low group consisted of six students who sat in their assigned seats. For Oral Langauge, the teacher would join the group by pulling up an additional chair. Very often the lesson began with picture flash cards, which students were required to identify and describe.

The Middle/High group was composed of nine students. They all sat at a table in the center of the room, where only the Middle group students normally sat. The teacher brought his own chair when he joined the group. Once again, the teacher usually began with picture flash-cards, which the students were to identify. Chinese lessons taught by the bilingual teacher as well as seatwork in the other teacher's class were recorded as well.

## Phase Two

In Phase Two, teachers and target students were recorded in different lessons: Oral Language and Seatwork in Teacher B's class and Reading and Chinese in Teacher A's. There were transcribed, coded, and analyzed. Following is an overall description of the activities within this phase of the study.

### Data Collection

Audiotape recordings were made through the use of a Marantz recorder, with two lavaliere microphones placed in the middle of each group's table. All data collection for Phase Two was conducted over a two-month period in the spring of 1982.

Two data collectors were present during each taping session, both fluent speakers of Cantonese, Mandarin, and English. One data collector took fieldnotes on the activities of the focal group, recording information on the physical arrangement of the group, important nonverbal behaviors, the text and/or materials used, and other contextual information. The other data collector, meanwhile, monitored the audiotape through earphones. Because of incidental noise in the class and the voices of students in other groups, the earphones enabled the data collector to hear much better the speech of the teacher and target students. This data collector wrote down names and utterance fragments of speakers throughout the interaction to aid in subsequent transcription.

### Transcription

The audiotape recording of each lesson was transcribed by the data collector who monitored that taping session. The handwritten transcript was then entered into an IBM Personal Computer used for the analysis. Those utterances in Chinese were transcribed in Chinese, and an English

translation was provided in brackets. Descriptions of nonverbal behavior were included in parentheses.

Coding

Utterances were coded using a system of Conversational-acts (C-acts) developed by Dore (1977) and employed in several studies of children's language use (Cole, Dore, Hall & Dowley, 1978; Dore, Gearhart & Newman, 1978; Guthrie, 1981; Hall & Cole, 1978). C-acts represent a taxonomy of speech act types which code utterances according to (1) the grammatical structure of the utterance, (2) its illocutionary properties, and (3) its general semantic or propositional content.

Because of the different nature and focus of the present research, some modifications were made in the system as used in previous studies. These included both the addition and deletion of certain codes. The revised list of codes, definitions, and examples is presented in Appendix A.

Forty-nine separate speech acts, each assigned a three-letter code, comprise the Conversational-act system. These are grouped into six broad function types: (1) Assertions, which solicit information or actions; (2) Organizational Devices, which control personal contact and conversational flow; (3) Performatives, which accomplish acts by being said; (4) Requests, which solicit information or actions; and (6) Responses, which supply solicited information or acknowledge remarks (Dore et al., 1978, pp. 372-3). An additional category of special speech acts which codes microphone talk, laughing, singing, etc. is also included. Conversational-acts serving the Request function, for example, include Requests for Action (QAC), Product Requests (QPR), and Requests for Permission (QPM).

Coding proceeded as follows. First, the grammatical form and its literal semantic meaning were determined. Then a judgement was made as to the conventional force, or purpose, of the utterance. In this step, sequencing, reference, and other conversational cues, such as marked illocutionary devices and intonation, were taken into consideration. Utterances were thus placed first within the six broad function types, and then categorized as an individual Conversational-act. Throughout the coding, the contextual information contained in fieldnotes provided an addition check for the validity.

Initial coding was conducted by the data collector who observed a particular lesson. To ensure inter-coder agreement, each taped session was then coded a second time by another member of the research team, all of whom had engaged in two weeks of training and practice. Discrepancies were resolved through discussion. Throughout the coding process, inter-coder agreement for individual lessons ranged from .90 to .96. It should be noted that Conversational-act coding has been shown to he highly reliable in other studies as well. In both the Cole et al. (1978) and Hall and Cole (1978) studies, inter-rater reliability approached .90.

Although utterances in Chinese were translated into English and entered as data, all coding was done on the original Chinese. In several instances, this procedure proved to be crucial since the English translation would have received a different code.

In a recent paper, Cicourel (1980) compared three prevalent models of discourse: the speech act model, the expansion model, and the problem-solving model. His conclusion was that any one of these models in isolation is inadequate; some sort of integration is required. The method used in the present study represents an attempt at such an integration. By including both quantitative and qualitative analyses, the speech act and expansion models were to some extent combined.

This integration also helped to meet some of the criticisms leveled by Cicourel against the speech act approach. Cicourel faulted the speech act model because it cannot easily account for 1) organizational features of interaction; 2) participant's strategies, e.g. plans for elaboration; 3) the situated nature of discourse, such as situated meaning and context; and 4) the multiple functions of utterances. The present study overcomes these weaknesses by incorporating the following methodologies:

First, organizational features of interaction, e.g. participant structures were identified in the Phase I observations. These guided the selection of episodes (lessons) for taping in Phase Two. All coding and analysis was done with regard to the participant structures. Second, attention was given to partipants' local strategies and plans for elaboration in ways of speaking. Because coding was done not on single sentences or utterances, but on stretches of discourse, taking the course and development of the conversation into consideration, the actor's strategies and intentions were included. In addition, the qualitative analysis in many respects focused on just this aspect of discourse. Particular attention was given to the questioning strategies each teacher employed in conducting parrticular lessons. Third, since all coding was done on relatively large stretches of language, situational meanings were taken into account. In coding the data, consideration was given to the speakers' utterances in context. What was said before, after, and in contexts more removed in time was taken into account in the coding. Finally, the present study was sensitive to the multiple functions of utterances in context. The C-act system allows for multiple coding so that important meanings and intentions are not lost. Further, in this study, the observers' fieldnotes provided a running description of the context which contributed to the coder's knowledge of and sensitivity to the interaction. The fact that the data collectors conducted the coding also contributed to its validity.

The use of Conversation-acts rather than other coding systems contributed to a mitigation of some of the other weaknesses Cicourel identified in speech act analyses. First, because Conversational-acts are sensitive to grammatical form, semantic content, and illocutionary force, and not just one of these, they provide a link between form and function. As Cole et al. (1978) point out, Conversational-acts mediate between the grammatical and the social, between the "grammatical forms .

. . and the interactional purpose for which they are used" (p.74). In other words, they integrate speakers' interests and purposes.

## CHAPTER THREE

## QUANTITATIVE DATA ANALYSIS

A total of 19 lessons/events were selected for analysis. The focus was on four types of classroom lessons/events, (1) Reading in English, taught by Teacher A and Oral Language, taught by Teacher B. The number of lessons by type and by teacher are given in Table 3, along with the time of recording and total number of utterances in each lesson.

Table 3

Sample of Lessons Analyzed

| | Teacher A (bilingual) | Teacher B |
|---|---|---|
| Type | Reading | Oral Language |
| No. of Lessons | 11 | 8 |
| Minutes | 185 | 155 |
| Utterances | 7456 | 8297 |

Data analysis has proceeded in the following manner. Beginning with a large corpus of data, nearly six hours (340 minutes) of tape recordings consisting of 15753 coded utterances, our first task was to begin to "slice" that data in ways which would make it meaningful. Each utterance was coded according to (1) the speaker, (2) speaker's oral English proficiency, (3) language of the utterance, and (4) the conversational-act (C-act) of the utterance performed. By treating each of these as an independent variable, we began to answer questions concerning children's and teachers' language use. For example, how does the langauge use of the two teachers vary across groups of students with different English language proficiencies? The system of Conversational-acts employed in the study (see Appendix) can also be reduced to six broad Function Types: (1) Assertions, (2) Organizational Devices, (3) Performatives, (4) Requests, (5) Responses, and (6) Special Speech Acts. For an examination of language use at a more general level, analyses can be conducted at that level.

## Molar Analysis

The first task undertaken in the analysis of teachers' language use was to examine possible differences in the overall number of Conversational-acts (C-acts) across lessons and student proficiency groups. This was accomplished by calculating the frequency of C-acts performed by each speaker in each lesson. From this were determined several proportions upon which other analyses were conducted.

We looked at, for instance, the proportion of the total C-acts within a lesson contributed by the teacher and students. This served as an index for comparison of teachers and student groups. For example, if in a lesson all the speakers, including the teacher, produced 1000 utterances, and 500 of those were the teacher's, the teacher would have contributed 50 percent of the talk. In Table 4 are given the proportions of overall talk contributed by Teacher A and Teacher B in the different instructional groups. Student group totals have been averaged for individuals. As can be seen, Teacher B contributed somewhat less than 50 percent in both the low and medium/high groups. Teacher A, on the other hand, performed nearly 60 percent of the C-acts in two of her groups, and 52 percent in the other. The higher proportion of talk with the Middle and Low groups might indicate that Teacher A more directly controlled the interaction with those students. Green and Wallat (1982), for instance, found that the teacher who talked more also took more control. The average amount of talk contributed by individual target students was remarkably consistent across lessons and classrooms.

Table 4

Proportion of Talk in Two Types of Lessons

| | Reading | | Oral Language | |
|---|---|---|---|---|
| | Teacher A | Student Avg. | Teacher B | Student Avg. |
| High | .52 | .06 | .49 | .08 |
| Middle | .58 | .07 | .47 | .07 |
| Low | .58 | .05 | -- | -- |

## Microanalysis

Once the molar analysis was complete, more fine-grained analyses were conducted at the level of the individual C-act. Two kinds of proportions formed the basis for this analysis. First, we examined for each speaker, the relative frequency of each C-act and Function Type within a lesson. In this way, we could see what percentage of a speaker's C-acts in reading lessons, for example,

were particular kinds of requests or responses. In the discussion which follows, this quantity is referred to simply as the proportion.

The second proportion was calculated in order that comparisons across lessons could be made. Since the instructional time for lessons varied in length from 8 to 24 minutes, valid comparisons of raw frequencies across lessons would be impossible. We thus kept careful count of the exact number of minutes in each lesson and multiplied frequencies of C-acts by the portion of an hour constituted by the lesson. This quantity is referred to as the rate.

As mentioned above, the system of Conversational-acts (C-acts) employed in the study can be broken into six broad Function Types: (1) Assertions, (2) Organizational Devices, (3) Performatives, (4) Requests, (5) Responses, and (6) Special Speech Acts. Definitions and examples of these are contained in Appendix A. Once we had examined overall C-act use in the various lessons, we next turned to an investigation of differences in terms of Function Types. From this we were able to determine that certain of these, notably Special Speech Acts, occurred so infrequently that data on them could tell us little. We thus focused our attention on these Function Types: Assertions, Organizational Devices, Performatives, Requests, and Responses. Within each, C-acts having especially high or low usage relative to independent variables were further examined.

In the analysis of teacher language use, two questions directed the analysis. First, are the differences in language use for the two teachers greater, or the differences for one teacher with different groups of students? Previous research has shown (Cherry, 1978; Enright, et al., 1981-82) that teachers differ more from each other in the ways they use language than they do from themselves when they interact with various sets of students. In this study, therefore, we sought to explore this issue in a Chinese bilingual situation. It might be predicted, for example, that Teacher B, because he spoke no Chinese, would exhibit greater differences in language use between his interactions with the two groups of students than he would with Teacher A.

The second question asked what the nature of those differences were, where they occured, and what accounted for the variations in language use.

To address these questions, then, both between-teacher and within-teacher comparisons were conducted. Comparisons were made at the individual C-act level, and criteria for establishing difference were as follows. Following Green and Harker (1982), we chose to establish an arbitrary criterion for the investigation of differences. Only C-acts of relatively high frequency were considered; this was arbitrarily set at 5 percent or more of the speaker's contribution to that lesson. The .05 proportion level eliminated all but eight or ten C-acts for each speaker; these

were the C-acts through which most of his or her speech was conducted. Where it appeared relevant, rate was also considered. The results of each analysis are presented below.

## Between Teacher Comparisons

Between teacher comparisons were made to determine whether teachers' language use differed in interaction with the same sets of children. These were conducted across each of two groups, Middle/High and Low. The group in this case is defined from the teacher's perspective, regardless of the fact that one or more of the individual members might have been rated somewhat differently in terms of oral English proficiency. In Table 5 are given the proportions of the most frequent C-acts for each teacher with Low and Middle/High groups. If the proportion for one teacher did not meet the five percent criterion for a particular C-act, that proportion is enclosed in parentheses. In Table 6 are given the mean rates (C-acts per hour) of those same most frequent C-acts.

Table 5

Teachers' Use of C-acts: Proportions

| | Low Group | | | Middle & High Group | | |
|---|---|---|---|---|---|---|
| C-Act | Tch A | Tch B | Difference | Tch A | Tch B | Difference |
| ADC | 0.09 | 0.11 | 0.02 | 0.13 | 0.09 | 0.04 |
| OAG | (0.02) | 0.06 | 0.02 | (0.01) | (0.02) | 0.01 |
| OBM | 0.08 | 0.10 | 0.02 | 0.08 | 0.07 | 0.01 |
| OSS | 0.06 | (0.02) | 0.04 | 0.07 | 0.07 | 0.00 |
| PPR | (0.03) | 0.07 | 0.04 | (0.01) | 0.05 | 0.04 |
| QAC | 0.11 | 0.13 | 0.02 | 0.06 | 0.09 | 0.03 |
| QCH | 0.07 | 0.06 | 0.01 | 0.08 | (0.04) | 0.04 |
| QPR | 0.12 | 0.10 | 0.02 | 0.09 | 0.11 | 0.02 |
| RAG | 0.10 | 0.05 | 0.05 | 0.09 | 0.11 | 0.02 |
| RAK | (0.02) | 0.07 | 0.05 | (0.02) | 0.05 | 0.03 |

Table 6

Teachers' Use of C-acts: Rates

| | Low Group | | Middle & High Group | |
|---|---|---|---|---|
| | Teacher A | Teacher B | Teacher A | Teacher B |
| C-Act | Rate | Rate | Rate | Rate |
| ADC | 105.39 | 177.11 | 184.51 | 137.57 |
| OAG | 27.54 | 95.18 | 15.49 | 29.14 |
| OBM | 99.17 | 160.24 | 120.42 | 99.43 |
| OSS | 74.85 | 30.12 | 101.41 | 101.14 |
| PPR | 30.54 | 116.87 | 16.20 | 80.97 |
| QAC | 127.54 | 209.64 | 88.73 | 134.29 |
| QCH | 77.84 | 107.23 | 114.79 | 57.71 |
| QPR | 134.73 | 159.04 | 135.21 | 168.00 |
| RAG | 113.77 | 83.13 | 134.51 | 168.00 |
| RAK | 22.75 | 108.43 | 28.17 | 74.86 |

Middle/High Group Comparisons

With the Middle/High group, it was found that the two teachers used similar sets of C-acts; only three of the C-acts in Table 6 did not meet the frequency criterion for both teachers. It might be surmised, therefore, that their interactional tasks were relatively similar and could be compared. They used Boundary Markers (OBM) and Speaker Selections (OSS) in practically the same proportion, which suggests that they organized the lessons in similar ways.

Boundary Markers may have much to do with a teacher's personal speaking style, e.g., the use of "okay" or "now" to set off lesson segments. Speaker selections, on the other hand, indicated the type of turn-taking routine operative in the exchange. When a teacher verbally nominates speakers, a very different way of allocating turns is in force than when, say, students bid for turns, or turns are automatically distributed. Notice that a proportion of .07 of each teacher's lessons with this group was devoted to OSS, and was remarkably close in terms of rate as well.

However, some salient differences did emerge. Of those C-acts in which the teachers revealed differences of use with the Middle/High group, the bilingual teacher (A) used more Complete Descriptions (ADC) and Choice Questions (QCH). The Anglo teacher (B) used relatively more Protests (PPR), Requests for Action (QAC), Product Requests (QPR), Acknowledgements (RAK), and Agreements (RAG).

These findings might suggest that (1) the bilingual teacher was providing the group with more information through the use of Complete Descriptions (ADC)(see Enright, et al., 1982); and (2) the Teacher B was engaging in more questioning behavior. However, an examination of the complete data set revealed that Requests of all types occupied only 30 percent of his speech to the group as opposed to 33 percent of Teacher A's. Teacher A, it seems, used a wider range of Request types, including Process Requests (QPC), Requests for Verbal Response (QVB), and Suggestions (QSU). The proportions for QPC, QVB and QSU in her speech approached the high frequency level of five percent established for the analysis (QPC and QVB = .04; QSU = .03).

Other of the C-acts above deserve comment as well. The higher frequency of Protests (PPR) and Requests for Action (QAC) could be an indication of management difficulties on the part of Teacher B. In coding the data, Requests for Action, for instance, could include both procedural instructions (Turn the page) and behavioral sanctions (Be quiet and listen). An examination of Teacher B's Requests for Action in one lesson revealed that sanctions outnumbered procedures almost three to one. In the following exchange, Teacher B tells students individually to put his or her papers away. In line 101, the Attention Getter (OAG) also serves as a Request for Action (QAC), as shown by Charles' response of "I know."

| Line | Spkr | C-act | Utterance |
|---|---|---|---|
| 093 | Teacher B | QAC | Put the paper in your desk, |
| 094 | | OAG | Stanley (Student 24), |
| 095 | | QAC | Put the paper in your desk. |
| 096 | | OAG | Hieu-Nan (Student 21), |
| 097 | | QAC | In your desk. |
| 098 | Student 25 | UNT | : : : : |
| 099 | Student 24 | AIR | I know that. |
| 100 | | ADC | I'm cutting. |
| 101 | Teacher B | OAG/QAC | Charles (Student 25) |
| 102 | Student 25 | AIR | I know. |

Acknowledgements (RAK) and Agreements (RAG) are common ways in which teachers react to student responses. Acknowledgements coded those teacher reactions which were noncommital, e.g., "yeah," "okay." Agreements, on the other hand, provide the student with an evaluation: "right," "yes," or "no." In the coding of these, distinctions frequently had to be made on the

basis of the speaker's intonation. The fact that Teacher B revealed a higher proportion of both Acknowledgements and Agreements indicates that students in the High group received frequent feedback on their responses. Approximately one-third of Teacher B's feedback was in the form of Acknowledgments (RAK) and thus contained little information in regard to the correctness of student answers. Teacher A showed much more of a preference for Agreements (RAG), using them at a ratio of more than four to one over Acknowledgments (RAK).

Low group comparisons

Comparisons across teachers' language use with the low group revealed somewhat similar patterns of differences. These are presented in Tables 5 and 6.

Consider first those C-acts which were used in similar proportions by both teachers, i.e., differ by two percent or less. These include Complete Descriptions (ADC), Boundary Markers (OBM), Requests for Action (QAC), Choice Requests (QCH) and Product Requests (QPR). That these show similar frequencies of usage suggests that the overall questioning strategies employed by the teachers were comparable, and that the task demands for the students were much the same. Notice, however, the rate with which Teacher B employed Requests for Action (QAC) -- over 200 per hour, or nearly 3.5 per minute. In the sample data, this is the highest rate for either teacher with any C-act. By comparison, one teacher in the Enright, et al. (1982) study used "directives" at a rate of 2.8 per minute, but that coding system would presumably include other C-acts such as Suggestions (QSU) and Requests for Verbal Action (QVB).

The greatest differences in proportion appear more in regard to the ways of organizing and managing the group, and in responding to student answers. The bilingual teacher (A), for instance, showed higher proportions of Speaker Selections (OSS) and Agreements (RAG), while Teacher B used relatively more Attention Getters (OAG) and Protests (PPR).

Differences also emerged in the responses to student answers made by the two teachers. As can be seen on Table 7, both teachers used a combination of Acknowledgments (RAK) and Agreements (RAG), and, interestingly enough, the total proportion of RAG and RAK for each teacher was 12 percent. As with the High group, Teacher B showed a preference for Acknowledgements (RAK). Notice, however, that the bilingual teacher employed a much higher proportion of Agreements (RAG) than did Teacher B; these constituted fully 10 percent of her overall speech to the group. This difference suggests that the bilingual teacher provided more informational feedback to the students than did the Anglo teacher. Good examples appear in the passage quoted below. Here the teacher is asking the students in the group to describe the illustration in their text.

| Line | Spkr | C-act | Utterance |
|---|---|---|---|
| 389 | Student 11 | RVB | The man is looking. |
| 390 | Teacher A | RAG | Oka-ay. |
| 391 | | QPR | Who is the man looking at? |
| 392 | | OSS | Harriet (Student 52). |
| 393 | Student 52 | RPR | The girl. |
| 394 | | RPR | The man is looking at the girl. |
| 395 | Teacher A | RAG | Right. |
| 396 | | QPR | And what is the girl doing? |
| 397 | | OSS | Hieu-Nan (Student 24). |
| 398 | Student 24 | RPR | The girl said, "Hi." |
| 399 | Teacher A | RAG | The girl said, "Hi." |
| 400 | | OEX | Aiya. [Chinese exclamation.] |
| 401 | | RAG | That's right! |

The use of Speaker Selections (OSS) or Attention Getters (OAG) represent complementary aspects of the organization of interaction within an instructional group. In a situation in which students are on task and attending to what the teacher says, Speaker Selections may be used to allocate turns; however, when students are off task, Attention Getters must be employed. These data suggest that Teacher B was forced to follow the latter route more often than was Teacher A. Six percent of his talk was composed of Attention Getters with the Low group. The above excerpt from a Reading lesson reveals how Teacher A, on the other hand, distributed turns within that group using Speaker Selections (OSS).

As mentioned earlier, Teacher B employed a slightly higher frequency of Requests for Action in lessons with the Low group, but at a very high rate. As with the Middle/High group, these were predominantly behavioral rather than procedural. The bilingual teacher, on the contrary, made use of a high proportion of procedural Requests for Action. In the following excerpt from a Low group Reading lesson, for example, she is asking the group to pretend they are different musical instruments.

A comparison of this exchange with that quoted earlier from Teacher B's lesson reveals the difference between their use of Requests for Action.

Consider next the teachers' use of Protests (PPR) with the Low group. The higher frequency of Protests in the talk of Teacher B are a further indication of the management difficulties he experienced. Protests occupied seven percent of Teacher B's total speech to the group, and were used at a rate of nearly 117 per hour, nearly two per minute. Teacher A used Protests only three percent of the time and at a rate of only 30 per hour.

| Line | Spkr | C-act | Utterance |
|---|---|---|---|
| 430 | Teacher A | QAC | I want you to close your eyes. |
| 431 | | QAC | Close your eyes. |
| 432 | | PPR | Excuse me. (To other group.)_ |
| 433 | Student 11 | SAL | (giggle). |
| 434 | Student 24 | ADC | [I pretend . . .] |
| 435 | Teacher A | QAC | Close your eyes. |
| 436 | | QMA | I want you to pretend that you're big. |
| 437 | | QAC | You have to close your eyes. |
| 438 | | QMA | And have a long neck. |
| 439 | | OBM | Okay. |
| 440 | | QCH | You pretending? |
| 441 | Student 99 | RCH | Yeah. |
| 442 | Teacher A | QMA | And you have five strings on the front of you. |
| 443 | Student 11 | RAG | No. |
| 444 | Teacher A | ADC | And I'm going to come around with a bow, |
| 445 | | ADC | And I'm going to rub the bow across your tummy. |

Summary. In order to compare the total amount of difference between the teachers' use of language across instructional groups, the differences in proportions were totaled for each group. In other words, for ADC in the High group comparison there was a difference of 0.04 (0.13 - 0.09). The sum of all differences for the High group was 0.26, and for the Low group, 0.31. This would seem to indicate that in a more or less global sense, the level of differences was quite similar.

## Within Teacher Comparisons

Comparisons were also made of each teacher's language use with different groups. For this analysis, students were once again considered in Middle/High and Low groups, i.e., the four groups in Teacher A's class were collapsed into two.

Teacher A. Teacher A's most frequently used Conversational-acts with the two groups are given in Table 7. These figures reveal a remarkable consistency in her language use across the groups; indeed, the only C-acts which are significantly different in proportion are Complete Descriptions (ADC), Requests for Action (QAC), and Product Requests (QPR). All other high proportion acts were found to be more or less equivalent. These included Organizers (OBM and OSS), Requests (QCH), and Responses (RAG). The pattern for Teacher A then is consistent with that reported by Cherry (1978) and others that, while teacher expectations cause variations in their interaction with different groups of children, these differences are not so great as those across teachers.

Table 7

Within Teacher Comparisons in C-act Use:
Teacher A

| C-act | Middle/High Prop. | Middle/High Rate | Low Prop. | Low Rate | Difference |
|---|---|---|---|---|---|
| ADC | 0.13 | 184.51 | 0.09 | 105.39 | 0.04 |
| OBM | 0.08 | 120.42 | 0.08 | 99.17 | 0.00 |
| OSS | 0.07 | 101.41 | 0.06 | 74.85 | 0.01 |
| QAC | 0.06 | 88.73 | 0.11 | 127.54 | 0.05 |
| QCH | 0.08 | 114.79 | 0.07 | 77.84 | 0.01 |
| QPR | 0.09 | 135.21 | 0.12 | 134.73 | 0.03 |
| RAG | 0.09 | 134.51 | 0.10 | 113.77 | 0.01 |
| | | | | Total | 0.15 |

Following the interpretation used earlier in regard to Complete Descriptions (ADC) and Requests for Action (QAC), we may assume that Teacher A (1) provided more information to the High group, (2) asked the Low group more informational questions, and (3) gave the Low group more physical directions. An examination of the actual C-acts employed by Teacher A with these groups provides some explanation for these variations. First, in her lessons with the High Reading group, Teacher A allocated more time to the concepts related to the story. Beginning with a picture, or the story title, she often engaged the students in a discussion of ways it related to their own lives. How she did this is shown in the following discussion of "lost and found," the title of the story. Here she creates a verbal picture of a situation in order to remind (or inform) students of the school "lost and found."

Although Product Requests (QPR) were used in a greater proportion with the Low group, they ranked second only to Complete Descriptions (ADC) with the Middle/High students. The rate, furthermore, was essentially the same, about 135 per hour. In regard to the more frequent use of Requests for Action with the Low group, we can assume that interactions of the type quoted earlier, in which students were asked to close their eyes and pretend, could account for part of the difference. It is also the case that the Low group was given more instructions on the order of "Copy the sentences" and "Open your books."

| Line | Spkr | C-act | Utterance |
|---|---|---|---|
| 918 | Teacher A | QPR | Where do you think you can find them? |
| 919 | | OSS | Yvonne. (Student 47) |
| 920 | Student 47 | RPR | At the place that you lost it. |
| 921 | Teacher A | RAK | Okay. |
| 922 | | RAG | The place where you lost it. |
| 923 | | ADC | If you lost them in the yard, you can find them in the yard. |
| 924 | | QPC | But what if someone comes along and sees a hat on a bench? |
| 925 | | ADC | "I wonder who that belongs to." |
| 926 | | ADC | and the person takes the hat to the office. |
| 927 | | ADC | And when you come back, you can't find it. |
| 928 | | ORQ | Right? |
| 929 | Student 41 | ADC | You go to the office. |
| 930 | Teacher A | QPR | Where would you go? |
| 931 | Student 41 | ADC | You go to the office. |

Teacher B. Similarities and differences in C-act use across the two instructional groups for Teacher B were also calculated and are presented in Table 8. Findings for this teacher were quite different from those which emerged from the data on Teacher A. Most obvious is the fact that the total difference amounted to .34, twice that for Teacher A. Most of the differences in proportion were not particulary great (the largest was 0.06), but there were several C-acts which showed different proportions and rates across the groups.

The patterns of differences in C-act use proved quite interesting. Those favored in the Middle/High group included Speaker Selections (OSS), Product Requests (QPR) and Agreement Responses (RAG). With the Low group, Teacher B used more Complete Descriptions (ADC), Attention Getters (OAG), Boundary Markers (OBM), Protests (PPR), Requests for Action (QAC), Choice Requests (QCH), and Acknowledgements (RAK). Teacher B's language use with the Middle/High group, then, is similar to that of Teacher A with her groups. Turns were allocated through Speaker Selections and feedback was given with Agreements (RAG).

Table 8

Within Teacher Comparisons in C-act Use:
Teacher B

| C-act | Middle/High Prop. | Middle/High Rate | Low Prop. | Low Rate | Difference |
|---|---|---|---|---|---|
| ADC | 0.09 | 136.57 | 0.11 | 177.11 | 0.02 |
| OAG | (0.02) | 29.14 | 0.06 | 95.18 | 0.04 |
| OBM | 0.07 | 99.43 | 0.10 | 160.24 | 0.03 |
| OSS | 0.07 | 101.14 | (0.02) | 30.12 | 0.05 |
| PPR | 0.05 | 80.57 | 0.07 | 116.87 | 0.02 |
| QAC | 0.09 | 134.29 | 0.13 | 209.64 | 0.04 |
| QCH | (0.04) | 57.71 | 0.06 | 107.23 | 0.02 |
| QPR | 0.14 | 204.00 | 0.10 | 159.04 | 0.04 |
| RAG | 0.11 | 168.00 | 0.05 | 83.13 | 0.06 |
| RAK | 0.05 | 74.86 | 0.07 | 108.43 | 0.02 |
| | | | | Total | 0.34 |

Several of the C-acts used in greater proportion with the Low group have implications for the way in which the group was organized, e.g., Speaker Selections and Attention Getters. Others relate more to instruction. In terms of organization, Teacher B seemed to have had some difficulty with the Low group. There were higher frequencies of Attention Getters, Protests, and Requests for Action. In regard to instruction, he provided them with more information in the form of Complete Descriptions, and also made more Choice Requests (QCH). He gave more directives, provided more information, and did relatively less questioning. The Middle/High group, on the other hand, was conducted in a basic Question-Answer-Evaluation format. Turns were allocated through Speaker Selections and there were few calls for attention or protests by the teacher.

Summary. Differences in proportion across groups for each teacher were calculated and summed. Teacher A had a total difference of 0.15, while Teacher B' differences added to 0.34. Obviously, then, the overall differences in language use across groups for the two teachers were in contrast. Teacher A appeared to be doing much the same thing with both groups, while Teacher B used language in very different ways.

## Students' Language Use

Student language was analyzed in much the same way as that of the teachers. Two types of comparisons were made: 1) between teachers for the same English proficiency group, and 2) within teachers across English proficiency groups. These data are in relation to the English proficiency groups which resulted from the teachers' ranking, and do not necessarily coincide with the instructional groups, although there is of course some overlap.

Thus "low," "medium" and "high" in this discussion refer only to students' English language proficiency.

Because the number of students present in a lesson varied, the frequencies obtained in the analysis were divided by the number of students participating. Rates, then, represent the average rate for the students in the group. The results of these analyses follow.

## Between Teachers Analysis

Low proficiency group. In Table 9 are given the proportions and rates of C-acts for those students ranked low in English language proficiency. It is in this comparison that the most dramatic differences of the anaysis emerged. The level of difference between the various C-acts ranged from 0.07 for Product Responses (RPR) to 0.26 for Responses to Verbal Requests (RVB); the total difference for the group was 0.53.

Table 9

Students' Language Use Across Teachers:
Low English Proficiency Group

| C-act | Oral Language Prop. | Oral Language Rate | Reading Prop. | Reading Rate | Difference |
|---|---|---|---|---|---|
| ADC | 0.15 | 31.29 | 0.06 | 4.31 | 0.09 |
| AID | 0.05 | 09.88 | 0.05 | 3.35 | 0.00 |
| AIR | 0.06 | 13.41 | 0.06 | 4.55 | 0.00 |
| OAG | (0.03) | 5.65 | 0.05 | 3.35 | 0.02 |
| OFL | (0.04) | 9.65 | 0.05 | 3.35 | 0.01 |
| OVP | 0.09 | 19.76 | (0.01) | 0.96 | 0.08 |
| RCH | 0.06 | 12.94 | 0.06 | 4.19 | 0.00 |
| RPR | 0.26 | 55.76 | 0.19 | 13.77 | 0.07 |
| RVB | (0.01) | 2.12 | 0.27 | 19.40 | 0.26 |
| | | | | Total | 0.53 |

It is clear, then, that the Limited English Proficient (LEP) students were doing something quite different in each of the classrooms. In Oral Language, more than 25 percent of their talk was in form of Product Requests (RPR) and another 15 percent in Complete Descriptions (ADC). This would seem to indicate that the students were indeed getting valuable experience in the use of English. They were providing the teacher with responses to his requests for information. The high frequency of Verbal Play (OVP) is more difficult to interpret. It accounted for nearly 10 percent of the talk in Oral Language, but only one percent in Reading. On the one hand, it may be that Verbal Play reflects a lack of attention to the task at hand. This interpretation is supported by the high detree of Attention Getters, Protests, and Action Requests in Teacher B's language. On the other hand, it could be that at least some playing with language has a positive

effect and contributes to language learning. Consider the students' language in the following example. Here Teacher B is asking the group to identify pictures of zoo animals. When they answer "Go" and "Ding-dong," they are clearly off-task, but the playful repetition of "bear" (664-5) and the corruption of "giraffe" (671) may not be.

| Line | Spkr | C-act | Utterance |
|---|---|---|---|
| 658 | Teacher B | QPR | What's this animal? |
| 659 | Student 99 | RPR | Bear. |
| 660 | Teacher B | RAK | Okay. |
| 661 | | OFS | This is . . . |
| 662 | Student 12 | OVP | Go. |
| 663 | Student 13 | OVP | Ding-dong. |
| 664 | Student 15 | OVP | Bear. |
| 665 | | OVP | Bear. |
| 666 | Teacher B | RAG | No. |
| 667 | | OBM | Okay. |
| 668 | | OFS | This is . . . |
| 669 | | QPR | What's this animal? |
| 670 | Group | RPR | Giraffe |
| 671 | Student 12 | OVP | Pan raffe. |

The largest difference in favor of the Reading lesson was in terms of Responses to Verbal Requests (RVB), which coded oral reading and repeating aloud. Obviously, and predictably, the students are engaged in more reading-like activities in Teacher A's class. The low proportion of RVBs in Teacher B's lessons show as well that he was not conducting the types of drills common to English as a Second Language lessons. Drill-like repetitions, substitutions, and the like were coded RVB.

Middle proficiency group. Table 10 shows the proportions and rates for students ranked in the middle for oral English language proficiency. In Oral Language, nearly one-third of students' C-acts were providing answers to the teachers Product Requests; this was followed by Complete Descriptions (ADC). In Reading, their language was more diverse in that the most frequent C-act (ADC) was used less than one-fifth the time. Product Responses (RPR) and Verbal Action Responses (RVB) occupied one-tenth of their talk. Overall differences for this group totaled .40.

The most dramatic differences between the lessons for these students were the greater proportion of Product Responses (RPR) in Oral Language and Choice (RCH) and Verbal Action Responses (RVB) in Reading. These contrasts are no doubt related to variations i task focus. There was more questioning for information in Teacher B's class and more reading in Teacher A's. However, Middle proficiency students also produced a higher frequency of Verbal Plays (OVP) in Oral Language.

Table 10

Students' Language Use Across Teachers:
Middle English Proficiency Group

| C-act | Oral Language Prop. | Oral Language Rate | Reading Prop. | Reading Rate | Difference |
|---|---|---|---|---|---|
| ADC | 0.14 | 21.00 | 0.18 | 11.97 | 0.04 |
| AID | 0.07 | 10.42 | (0.04) | 2.69 | 0.03 |
| AIR | 0.05 | 7.00 | (0.04) | 2.69 | 0.01 |
| OAG | 0.05 | 7.00 | 0.05 | 3.29 | 0.00 |
| OVP | 0.06 | 8.85 | (0.02) | 1.35 | 0.04 |
| RCH | (0.03) | 5.29 | 0.09 | 6.29 | 0.06 |
| RPR | 0.28 | 38.00 | 0.15 | 10.18 | 0.13 |
| RVB | (0.02) | 2.61 | 0.11 | 7.64 | 0.09 |
| | | | | Total | 0.40 |

High proficiency group. In Table 11 are given the proportion and rate figures across lessons for those target students who were ranked high in English language proficiency. For this group, the contrast is less pronounced. Differences in proportion total only 0.38, and most of that derives from one C-act. The greatest contrast involves the much higher proportion of Product Responses (RPR) in Oral Language. High proficiency students in that class performed that C-act over one-third of the time. Notice as well the higher proportion of Process Responses (RPC) by that group.

Table 11

Students' Language Use Across Teachers:
High English Proficiency Group

| C-act | Oral Language Prop. | Oral Language Rate | Reading Prop. | Reading Rate | Difference |
|---|---|---|---|---|---|
| ADC | 0.13 | 19.55 | 0.16 | 9.77 | 0.03 |
| AID | 0.11 | 16.91 | 0.07 | 4.02 | 0.04 |
| OFS | 0.06 | 8.65 | 0.05 | 2.88 | 0.01 |
| QAC | (0.01) | 1.50 | 0.05 | 2.88 | 0.04 |
| RCH | (0.04) | 6.02 | 0.05 | 2.88 | 0.01 |
| RPC | (0.01) | 1.13 | 0.06 | 3.45 | 0.05 |
| RPR | 0.35 | 54.88 | 0.17 | 10.34 | 0.18 |
| RVB | 0.06 | 4.89 | 0.08 | 4.60 | 0.02 |
| | | | | Total | 0.38 |

Summary. The analysis of the language use of the three English language proficiency groups reveals a pattern of progressivly less divergent language use across lessons (teachers) from low to high. Overall difference scores were the following: Low = .53; Middle = .40; and High = .38. The obvious implication

of these findings is that student language is more similar across the two teachers lessons as student English language proficiency increases. With the possible exception of Verbal Play in Oral Language, all the high frequency C-acts appear to be task-oriented. This suggests that while Teacher B may have had some difficulty in maintaining the attention of the Low group students, they were engaged in the lesson.

## Within Teachers Analysis

Comparisons were made as well between the language use of students across lessons of the same type. These were once again conducted from the point of view of students' oral English language proficiency. Within each lesson type, comparisons were made across the three groups, i.e., Low to Middle, Low to High, and Middle to High.

Oral Language. Proficiency group comparisions in Oral Language are presented in Table 12 and revealed the following pattern. Contrasts were greatest between the Low and High proficiency groups; second was the difference between Middle and High. In both cases, the differences was mainly in terms of Product Responses (RPR) and Verbal Play (OVP). Whereas the High students did more answering, the Low and Middle group students were more often off task.

Table 12

Students' Language Use Within Teachers:
Oral Language

| | Group | | | | | | Differences | | |
|---|---|---|---|---|---|---|---|---|---|
| | Low | | Middle | | High | | | | |
| | prop. | rate | prop. | rate | prop. | rate | L-M | M-H | L-H |
| ADC | 0.15 | 31.29 | 0.14 | 21.12 | 0.13 | 19.55 | 0.01 | 0.01 | 0.02 |
| AID | 0.05 | 9.88 | 0.07 | 10.43 | 0.11 | 2.63 | 0.02 | 0.04 | 0.06 |
| AIR | 0.06 | 13.41 | 0.05 | 7.00 | (0.04) | 6.03 | 0.01 | 0.01 | 0.02 |
| OAG | (0.03) | 5.65 | 0.05 | 7.04 | (0.02) | 3.38 | 0.02 | 0.03 | -- |
| OFS | (0.03) | 7.06 | (0.02) | 2.87 | 0.06 | 8.65 | -- | 0.04 | 0.03 |
| OVP | 0.09 | 19.76 | 0.06 | 8.85 | (0.01) | 1.88 | 0.03 | 0.05 | 0.08 |
| RCH | 0.06 | 12.98 | (0.03) | 5.26 | (0.04) | 6.01 | 0.03 | -- | 0.02 |
| RPR | 0.26 | 55.76 | 0.28 | 43.25 | 0.35 | 54.88 | 0.02 | 0.07 | 0.09 |
| | | | | | | Totals | 0.14 | 0.25 | 0.32 |

Reading. Proficiency group comparisons in Reading are given in Table 13. They produced the following results. First, the differences were much greater than in Oral Language (from 0.26 to 0.55). Second, the greatest contrast was once again between the Low and High groups; the next greatest, however, was between Low and Middle, rather than Middle and High. In Oral Language, the two lower groups performed a more similar array of C-acts, but in Reading, it was the two upper groups which were more alike.

In these comparisons, two C-acts accounted for most of the difference. The Low group performed far more Verbal Action Responses (RVB), and the Middle and High groups produced more Complete Descriptions (ADC). These differences can be attributed to the contrasting activities of the Low Reading group. These students did primarily decoding tasks, both with flashcards and from the board. The Middle and High speakers read more for meaning and engaged more in discussions with the teacher.

Table 13

Students' Language Use Within Teachers:
Reading

| | Group | | | | | | Differences | | |
|---|---|---|---|---|---|---|---|---|---|
| | Low | | Middle | | High | | | | |
| | prop. | rate | prop. | rate | prop. | rate | L-M | M-H | L-H |
| ADC | 0.06 | 4.31 | 0.18 | 11.98 | 0.16 | 9.77 | 0.12 | 0.02 | 0.10 |
| AID | 0.05 | 3.35 | (0.04) | 2.69 | 0.07 | 4.02 | 0.01 | 0.03 | 0.02 |
| AIR | 0.06 | 4.55 | (0.04) | 2.69 | (0.03) | 1.72 | 0.02 | -- | 0.03 |
| OAG | 0.05 | 3.59 | 0.05 | 3.29 | (0.01) | 0.57 | 0.00 | 0.04 | 0.04 |
| OFL | 0.05 | 3.35 | (0.03) | 2.10 | (0.04) | 2.30 | 0.04 | -- | 0.04 |
| OFS | (0.04) | 2.87 | (0.04) | 2.54 | 0.05 | 2.87 | -- | 0.01 | 0.01 |
| QAC | (0.01) | 0.72 | (0.02) | 1.05 | 0.05 | 2.87 | -- | 0.03 | 0.04 |
| RCH | 0.06 | 4.24 | 0.09 | 6.29 | 0.05 | 2.87 | 0.03 | 0.04 | 0.01 |
| RPC | (0.01) | 0.96 | (0.02) | 1.65 | 0.06 | 3.45 | -- | 0.04 | 0.05 |
| RPR | 0.19 | 13.77 | 0.15 | 10.18 | 0.17 | 10.35 | 0.04 | 0.02 | 0.02 |
| RVB | 0.27 | 19.40 | 0.11 | 7.64 | 0.08 | 4.60 | 0.16 | 0.03 | 0.19 |
| | | | | | | Totals | 0.42 | 0.26 | 0.55 |

## CHAPTER FOUR

## QUALITATIVE DATA ANALYSIS

In this section is described the qualitative analysis conducted on the transcipt and audiotape data. The focus of the analysis emerged from the quantitative analysis described in the previous chapter. In other words, those aspects of interaction and instruction which appeared to be significant directed the analysis. It was found, for example, that Teacher B and a higher proportion of Attention Getters (OAG) and Protests (PPR) with the Low group. Portions of the transcripts which contained a high frequency of those C-acts were then located and examined. In this way, different aspects of the interactions with both teachers were considered. Overall, the qualitative analysis has been conducted along the following dimensions: group management, questioning strategies, and the use of L1 in instruction. Each of these is discussed in turn. Teacher will be treated separately so that a qualitative picture of each classroom may emerge, and comparisons will be made at the end.

### Oral Language Lessons

#### Group Management

As reported above, the interactions of Teacher B with the Low Oral Language group were characterized by a higher proportion of Attention Getters (OAG), Requests for Action (RAG), and Protests (PPR). Taken in combination, these Conversational-acts describe lessons in which there is a certain lack of order. In the previous section, examples of these efforts at regaining control over the group were provided. What was not available in the reported frequencies and proportions, however, was clear evidence for what these aspects of language use look like in practice. It was suggested that the particular turn-taking mechanisms employed in the groups might have been a factor. To further examine this possiblity and to explore the data for others, a detailed qualitative examination of the data was undertaken. At least two aspects of Teacher B's instruction, the clarity of the instructions and the clarity of rules for interaction, were found to be contributing to the confusion in the Low group lessons.

Clarity of Instructions. A clear statement of the task demands for a lesson has been identified as a significant feature of effective instruction (Good & Brophy, 1974; Tikunoff, 1983). When students are sure of the task, they are more likely to perform and behave well. One factor which seemed to differentiate the Low Oral Language lessons from the other lessons of Teacher B (and Teacher A), was the degree of clarity with which instructions were given. In the Middle/High group lessons sampled, Teacher B

was often found to carefully outline the task to follow. Students were given explicit instructions for what they were to do and how to do it. Consider, for example, Teacher B's instructions in the following excerpt from a lesson beginning. Lesson and line numbers are indicated in parentheses.

> All right, when I point to you, I want you to tell me your first name and your last name. And then I want you to go over your street address, uh, and your phone number (5:81-86).

When the first student began by reciting his phone number, Teacher B interrupted and repeated the instructions: "When I point to you, tell me your first name and your last name, your street address and your phone number" (5:95-96). The effectiveness of this approach is seen in the responses of the students.

| Speaker | C-act | Utterance (5:102-106;165-183) |
|---|---|---|
| Teacher B | (QPR) | (Teacher points at Student 23) |
| Student 25 | RPR | Harvey Ching. |
| | RPR | 2113 Stanton Street. |
| | RPR | 467, 474-3710. |
| Teacher B | RAK | Okay. |
| | | * * * * |
| Teacher B | OBM | Okay. |
| | OSS | Your turn (points at Student 25). |
| Student 25 | RPR | Albert N. |
| Teacher B | RAKQPR | Okay. |
| Student 25 | RPR | 15 Walnut Place. |
| Teacher B | QPR | Apartment? |
| Student 25 | RQL | Apartment, I don't know. |
| Teacher B | RAK | Okay. |
| | QPR | What's your phone number? |
| Student 25 | RPR | Phone number 939-9416. |
| Teacher B | QPR | What's your mom's name, or your dad's? |
| Student 25 | RPR | Suki Ching. |
| Teacher B | RAK | Okay. |

In contrast, when Teacher B attempted the same task with the Low group, he was much less clear about what he expected the students to do. For one thing, with the previous group, this task was introduced at the beginning of a lesson. With the low group, the lesson had begun with a discussion of a field trip to the city aquarium. While students were telling what they had seen on the field trip, Teacher B changed the focus. "Wait a minute now," he said,"let's play a pretend game." He then asked the group to pretend that they were in the aquarium looking at fish, but when they looked around, both teachers and all the students were gone. "What would you do?" he asked. This strategy seemed not to work;

the students were confused as to the task and its purpose. Student 12, for instance, appeared to misunderstand completely the conditional aspect of Teacher B's request.

| Speaker | C-act | Utterance (6:410-415) |
|---|---|---|
| Teacher B | OFS | Could you . . . |
| | QCH | Could you go up to the police man and tell him that you were lost? |
| Group | RCH | No-o-o. |
| Teacher B | QPC | Why? |
| Student 12 | RPC | I didn't lost. |

Turning to a more direct approach, Teacher B simply asked individual students for their addresses; but even then, the straightforward set of rules given the Middle/High group were omitted. Over and over, Teacher B appeared to struggle for the group's attention, trying to initiate the new activity.

Evidence of the differential treatment of the two groups was found in other lessons as well. Teacher B frequently used the Oral Language lessons to give students practice in identification and description of various types of pictures, e.g. animals and people with different jobs. In the sampled lessons, for example, he used a set of animal cards with each group. With the Middle/High group Teacher B introduced the lesson with an explicit statement of the task. The Low group lesson, on the other hand, began with only a casual remark: "All right, we're going to talk about pictures. Do you remember this picture?" (15:125-126). While the teacher did follow this up with instructions to "point to the mice that are going under the tree" (15:136), he never really framed the lesson. It is not even clear that he had all the students' attention, for several started to mumble and talk among themselves. In a second lesson on students' addresses and phone numbers, the teacher simply started asking questions, with no introduction at all. The first portion of this lesson is given below.

| Speaker | C-act | Utterance (14:21-84) |
|---|---|---|
| Teacher B | OAG | Wilson. |
| Teacher B | OFS | Do you remember |
| Student 12 | UNT | : : : : :: |
| Teacher B | PPR | Excuse me. |
| Teacher B | OAG | Fan-Ling. |
| Teacher B | OAG | Wilson |
| Teacher B | QCH | Do you remember your home phone number? |
| Student 11 | RCH | Yeah. |
| Teacher B | OFS | Would |
| Teacher B | QPR | Would you tell me your home phone number? |
| Student 11 | RPR | Nine. |

| | | |
|---|---|---|
| Teacher B | QAC | Go ahead. |
| | QAC | You say it. |
| Student 11 | RPR | Nine. |
| Teacher B | RAG | Nine. |
| Student 15 | AIR | Ngoh seung wan keuih [I want to look for it] |
| | ADC | Wan mhdou keuih. [But I can't find it.] |
| Student 11 | RPR | Three. |
| Teacher B | RAK | Three. |
| | PPR | Sh. (To A-Chin.) |
| Student 11 | RPR | Eight. |
| Teacher B | RAK | Eight. |
| Student 11 | RPR | Eight. |
| Teacher B | RAK | Eight. |
| Student 15 | OFS | Ngoh [I] |
| Student 11 | RPR | Six. |
| Teacher B | RAK | Six. |
| Student 11 | RPR | Seven. |
| Teacher B | RAK | Seven. |
| Student 15 | UNT | : : : : : |
| Student 11 | RPR | Four. |
| Teacher B | RAK | Four. |
| | QCH | Do you remember your house number, your address of the house? |
| Student 12 | UNT | : : : : : : |
| Teacher B | OAG | Fan-Ling. |
| | PPR | Would you sit still? |
| Student 11 | QPR | What address? |
| Teacher B | QCH | Do you know the number of the house and the street the house is on? |
| Student 91 | OAG | Wilson. |
| Teacher B | QPCQSU | Could you tell that to |
| Student 11 | RPR | Eight. |
| Teacher B | RAK | Eight. |
| Student 13 | RAG | Mhhai eight. [It's not] |
| Student 11 | RPR | Two. |
| Teacher B | RAK | Two. |
| Student 11 | RPR | Two. |
| Teacher B | RAK | Two. |
| Student 16 | ADC | Mhnahnggau chou [Can't sit :] |
| Student 11 | RPR | One. |
| Teacher B | QPR | Eight, two, two. |
| Student 11 | RPR | One. |
| Teacher B | RAK | One. |
| | OBM | Okay. |
| | QPR | What street name? |
| | QPR | What's the name of the street? |
| | AAT | You don't know. |
| | OBM | Okay. |
| | PPR | Sh! |
| | OAG | A-Chin. |
| Student 15 | OCQ | What? |

Because there are several points to be made about this segment, it has been quoted at length. First, not only did Teacher B begin without setting a frame for the lesson, he began without getting the attention of all the students in the group. Students 12 and 15, for example, were engaged in a side conversation in Chinese about a lost book. Second, he addressed the first question to perhaps the least confident of the Low group students, Student 11 (Wilson). Then, after having to literally drag the numbers out of him, the teacher continued to interrogate the same student, rather than switching to someone else. Perhaps a better strategy would have been to ask one of the more verbal students to start off, thus setting an example for Wilson.

Clarity of rules for interaction. Another factor which undoubtedly contributes to the management and discipline of a group is the clarity of rules for interaction. Students must not only know what the instructions are, but must also understand the acceptable ways for answering and how turns will be distributed. In the quantitative analysis, it was found that Teacher B used higher frequencies of Attention Getters (OAG) and Teacher A, Speaker Selections (OSS). We asked, then, exactly how students knew what the interactional demands were, and how they were enforced. Teachers can arrange for students to take turns in a number of ways. The teacher for example, might have students bid for turns by raising their hands or calling out, nominate students without their bidding, require students to take turns in a regular order, or allow turns to be negotiated in the group.

In his Middle/High Oral Language lessons, Teacher B insisted that students raise their hands for a turn, and he usually made that clear from the beginning. Consider the opening of Lesson 1.

(1:6-16)

| Speaker | C-act | Utterance |
|---|---|---|
| Teacher B | OBM | Okay. |
| Teacher B | ADC | Yesterday, we looked at animals. |
| | APR | Today, we're going to look at different things that are not animals. |
| | ADC | They are things you use around the house. |
| Student 91 | SAS | (Soft singing.) |
| Teacher B | QAC | And you have to tell me what it is and what you use it for. |
| Student 91 | RCO | Okay. |
| Teacher B | QAC | Da-da-da. |
| | QAC | Just look at it first and raise your hand. |

In this excerpt, Teacher B first provided a context for the lesson, reminding the group what they did the day before. Next, he explained clearly what the task would be for this lesson: They would look at things used around the house and tell what they are

and what they are used for. Finally, he outlined the interactional demands for the lesson: "Just look at it first and raise your hand."

Teacher B was also careful to enforce the established task and interactional demands in lessons with the Middle/High group. Teacher B frequently restated the hand-raising rule in the course of a lesson and sanctioned those who spoke out of turn:

> All right. Okay, raise your hand if you know what this guy is doing. Just raise your hand. Don't speak out loud. (5:400-402)
>
> Don't say a word without my permssion. (1:979)
>
> Hold it! Just raise your hand. (1:886)
>
> Just don't call out, raise your hand, Janet. (5:492-493)

It is clear that the Middle/High students had been socialized into the interactional rules of the Oral Language lessons. They were aware of the hand-raising rule and held each other accountable for following it. As has been pointed out by McDermott (1976, 1978), people in interaction hold each other accountable for what transpires. In our examination of the High group transcripts, we found exactly that. Holding up a picture of a coffee pot, for example, the teacher asked what it was, selecting Harvey to answer. "I didn't raise my hand," he protested (1:507). They were also conscious of the fact that there should be an equal distribution of turns among the students. At the beginning of one lesson, for example, the following exchange took place. Notice again how explicit Teacher B is concerning the rules.

(20:52-60)

| Speaker | C-act | Utterance |
|---|---|---|
| Teacher B | ADC | I am going to show you pictures of stuff. |
| Teacher B | AEX | Things that you people wear or use on your bodies. |
| Teacher B | OBM | Okay. |
| Student 91 | UNT | Bon. |
| Teacher B | QPR | You tell me what it is. |
| Teacher B | QPC | What you use it for and where you wear it? |
| Student 21 | QCH | Everybody get a turn? |
| Teacher B | QAC | Raise your hand. |
| Teacher B | APR | Everybody will get a turn. |

The same student, Stanley, monitored the allocation of turns of the other students in his group. At one point he was heard to tell another student, "You already have one time" (1:442), and on another occasion, when the teacher sanctioned a student, Stanley explained, "You already have a chance" (20:197).

An examination of the interactions within the Low Oral Language lessons provides a vivid contrast to that described above. There seemed to have been no clear-cut rules for turn-taking in the group, and the behavior of the students reflected this. Students frequently spoke out, for example, and seemed to be unconcerned about equally distributing turns. In one lesson, for instance, Teacher B asked the students, "Where did we go yesterday?" They responded as follows.

| Speaker | C-act | Utterance (6:69-95) |
|---|---|---|
| Teacher B | QPR | Where did we go yesterday? |
| | QVB | We went to the aquarium. |
| Student 91 | ADC | I see a goldfish. |
| Student 13 | OFS | I see a . . . |
| | ADC | I see a alligator. |
| Student 12 | OFL | Uh-uh-uh. |
| Teacher B | OBM | All right, |
| | RAK | you saw an alligator. |
| | QPR | What did you see? (to Student 15) |
| Student 15 | OFS | I see a . . . |
| | RPR | I see a gold fish and a tiger fish. |
| Teacher B | RAK | Okay, |
| | RAG | a tiger fish and a gold fish. |
| Student 13 | UNT | I . . . I |
| Student 12 | PTE | A tiger fish. (laughing) |
| Student 11 | RPR | I see a snake : : fish. |
| Student 15 | RAG | Not a tiger fish, |
| | AID | talking fish. |
| Student 13 | OFS | I see . . . I see . . . |
| | RPR | I see tiger fish. |
| Teacher B | QAC | Wait a minute, wait a minute. |
| | PPR | Sh-h-h-h! |
| Student 12 | OVP | Talking fish |
| | OVP | Br-br-br (making the sound of a talking fish). |
| Teacher B | QPR | Hold it! |
| | PPR | Excuse me! |

With the Low group, Teacher B was constantly trying to regain the students' attention:

| Speaker | C-act | Utterance (6:279-287) |
|---|---|---|
| Teacher B | OBM | Now |
| | QPR | Is there anything else you saw? |
| Student 15 | SAL | (Laughing.) |
| Teacher B | PPROPM | Excuse me. |
| | QPR | Is there anything else you saw? |
| | OEX | Oh. |
| | QAC | Wait. |
| | UNT | You : : |
| | QAC | Wait a minute, wait a minute. |

Teacher B's management problems with the Low group are evident. With the High group he clearly stated the task and interactional demands for each lesson and was careful that students abided by those rules. In Low group lessons, however, he was often vague about what students were to do and appeared to have no established system for distributing turns. His questions were cast out upon the reading table to be picked up by anyone. When several children attempted to answer and begun competing a chance to speak, Teacher B saw it as disruptive and sanctioned them.

Questioning strategies

Transcripts were examined also for evidence of particular strategies used by teachers in their questioning of students. This was accomplished by focusing on patterns and sequences of Requests, and using the results of the quantitative analysis is a guide.

The results of the quantitative analysis of Requests and Responses used by Teacher B show that with the Middle/High group, he used relatively more Product Requests (QPR). With the Low group, Requests for Action (QAC) predominated and Choice Requests were used in greater proportion than with the High group. In terms of Responses, Teacher B favored the use of Agreement Responses (RAG) with the Middle/High group. These figures suggest that the teacher used differential approaches toward the instruction of each group, but tell us nothing about how questions were sequenced and what possible effect that might have on student response and learning.

Therefore, each transcript was examined for distinct questioning patterns. Individual members of the research team read through the corpus and identified potential examples, and these were then compared and discussed.

The overall finding that Teacher B addressed the two groups differently was once again borne out. With the Middle/High group, he showed great facility in sequencing and mixing question-types so that he was able to elicit desired responses from the students. In interactions with the Low group, however, he seemed unable (or

unwilling) to develop a sustained exchange with students. Consider the following example from a Middle/High lesson.

| Speaker | C-act | Utterance (1:113-144) |
|---|---|---|
| Teacher B | OSS | Janet. |
| Student 31 | RPR | It's a pan. |
| Teacher B | QPC | Tell me about the pan. |
| Student 31 | RPR | You would put. |
| Teacher B | QCH | I wash with this? |
| | OFS | I |
| | QCH | I take a bath sitting in a pan? |
| Student 31 | RCH | No. |
| Group | SAL | (Laughter.) |
| Teacher B | QPR | What do you use a pan for? |
| Student 24 | UNT | If you sit on it : : : |
| Student 31 | RPR | You cook it. |
| Teacher B | QPR | Like what? |
| | QPR | Name some things. |
| Student 26 | RPR | Cooking fish. |
| Teacher B | QPR | What do I cook in a pan? |
| | QCH | Do I cook soup? |
| Student 91 | RPR | (Whisper) pot. |
| Student 21 | RCH | Yeah. |
| Teacher B | RAG | I could. |
| | QPR | But what? |
| | QPR | What do you cook in a pan? |
| | QPR | What would you use this for? |
| Student 21 | RPR | Cook egg. |
| Student 31 | RPR | Steak. |
| Teacher B | OCQ | What? |
| Student 21 | RPR | Cook. |
| Student 31 | RPR | Steak. |
| Teacher B | RAK | You said it. |
| | OCQ | What? |
| Student 31 | RCL | Steak. (Louder voice.) |
| Teacher B | RAK | Okay. |

In this exchange, Teacher B used a series of Product Requests (QPR) to get students to generate a description of a pan and its uses. When Student 31 responded with "you cook it," the teacher prompted the group to provide examples: "Like what? Name some things." The following excerpt shows a slightly different strategy.

| Speaker | C-act | Utterance (1:22-40) |
|---|---|---|
| Teacher B | QPR | What is it called? |
| Student 91 | RPR | Teapot. (Whisper.) |
| Student 91 | RPR | Teapot. (Whisper.) |
| Student 21 | RPR | A pot. |

| | | |
|---|---|---|
| Teacher B | OCQ | A what? |
| Student 21 | RCL | A teapot. |
| Teacher B | RAG | A teapot. |
| Student 24 | SAL | Hm-m-m (Giggle) |
| Teacher B | QPC | How do you use it for water? |
| | QCH | You put this in the refrigerator? - |
| Group | RCH | No. |
| Student 23 | SAL | (Laughter.) |
| Student 24 | UNT | : : : : |
| Teacher B | PPR | I asked Stanley. |
| Student 21 | RPC | Give some water. |
| | OFL | And then and |
| | RPC | And put it in the stove and make it. |
| Teacher B | OEX | Oh. |
| | RAK | Okay. |

Here Teacher B began with a Product Request (QPR),got the desired Product Response (RPR), and gave a Response of Agreement (RAG). Teacher B then followed with a Process Request (QPC). When no response to the process question was immediately forthcoming, he used a simpler Choice Request (QCH) to direct the students toward the type of answer he sought. Student 21, for example, was able to describe how a teapot is used.

In contrast, consider Teacher B's use of questions with the Low group as shown in the long excerpt presented earlier in which he attempted to elicit Wilson's address (see section above on clarity of instructions).

| Speaker | C-act | Utterance (15:388-405) |
|---|---|---|
| Teacher B | QPR | What color are the apples? |
| Student 12 | OVP | Gohed. |
| | OVP | Ah wa. |
| Teacher B | QPR | Who can tell me the color of the apples? |
| Student 11 | RPR | Red. |
| Student 13 | RPR | Red. |
| Teacher B | RAG | Red. |
| | QPR | What color are the leaves? |
| Student 13 | RPR | Red. |
| Student 11 | RPR | Green. |
| Teacher B | RAG | Green. |
| Student 15 | RPR | Green. |
| Student 12 | RPR | Dark green and a green. |
| Teacher B | RAK | Okay. |
| | RAG | Dark green and light green. |
| Student 12 | RAG | Dark green green. |
| Teacher B | QPR | What color is the sky? |
| Student 15 | OFL | Mm-m-m. |

## Reading Lessons

An examination of Teacher A's Reading Lessons along the same dimensions as those presented above reveals a number of contrasts. As with the quantitative analyisis, these are primarily in regard to the teachers' interaction and language use with the Low group students. With the students relatively proficient in English, the teachers' ways of organizing and conducting the lessons are actually quite similar.

### Group Management

Two aspects of group management have been considered, clarity of instructions and clarity of rules for interaction. Each of these is discussed in turn. In addition, Teacher A's use of the students' first language (L1) in instruction is examined.

Clarity of instructions. Teacher A was remarkably consistent in the manner in which she introduced lessons. She carefully explained in simple terms what the students were to do, and often repeated the directions more than once. The following is an example from a Middle/High group lesson.

(22:240-248)

| Speaker | C-act | Utterance |
|---|---|---|
| Teacher A | OBM | Okay |
| | QSU | Let's read it together. |
| | OCQ | Okay? |
| | QPR | That means after I say it who says it? |
| Student 23 | RPR | Me. |
| Teacher A | QPR | Do you say it before I do? |
| Group | RPR | No-o-o. |

In this way Teacher A let the group know exactly what they were to do. By rephrasing her instructions and giving an example, she made sure the group knew what they were to do.

Clarity of rules for interaction. Teacher A was also very clear about the way in which she expected students to interact during a lesson. Notice the way in which Teacher A directs students' attention in the following excerpt from a Middle/High reading lesson. She first announced her intention to tell something, implying that what she had to say was important. Students were to attend with all their senses. Then, by asking individual students, she ensured that everyone understood the task.

| Speaker | C-act | Utterance (6:279-287) |
|---|---|---|
| Teacher A | OBM | Now, |
| | ADC | before I start, I want to make something very clear. |
| | ARU | I want you to listen with your ears and look with your eyes. |
| | QCH | Are you supposed to be looking back there? |
| Student 48 | RCH | No. |
| Teacher A | QPR | Where are you supposed to be looking? |
| Student 25 | RPR | Front. |
| Teacher A | OSS | How about you, Harvey? |
| | QPR | What are you supposed to listen -- I mean what are you supposed to be looking at? |
| Student 23 | RPR | Eye. |
| Teacher A | QCH | Back there or here? |
| Student 23 | RCH | Here. |

A very similar approach is taken with the Low group in this quotation. Here she used the same technique of questioning individuals about what they were to do, and making sure they understood. Students had rules to follow in different situations, and they were periodically reminded of those rules.

| Speaker | C-act | Utterance (13:708-718) |
|---|---|---|
| Teacher A | ADC | When the teacher's writing something on the board, |
| | QPR | what do you do? |
| | OSS | Ah-Yen. |
| Student 13 | RPR | Listen. |
| Teacher A | RAG | No. |
| | ADC | You don't listen. |
| Student 13 | AEX | Harriet step my feet. |
| Teacher A | ADC | You don't listen when I write on the board. |
| Student 24 | RPR | Be quiet and pay attention. |
| Teacher A | RAK | Okay. |
| | ARU | And look with your eyes. |

Teacher A made it very clear that she expected students to be quiet and to raise their hands for a turn, with both groups. In one Low group lesson, for example, she said the following.

I am going to pick on the people who are quiet. (21:120)

If you're not watching I'm not going to call on you later. (21:165)

I don't call on people who say "Me, me, me." (21:181)

Everyone sits nicely or else I won't call on you. (21:197)

When Teacher A had designated one student to read and several began instead, she said, "Uh-uh. Did I ask you to read it? How many people did I say read?" (21:267-270). In another lesson with the Low group, several students began to call out answers, and Teacher A told them she would only call on those who raised their hand nicely. "I can't see loud voices," she said, "I can only see hands go up." (9:241-247).

## Questioning Strategies

As with Teacher B, the lesson transcripts for Teacher A were examined for questioning patterns which appeared to be used with some consistency. In some respects, the questioning techniques employed by Teacher A were similar to those found in Teacher B's lessons with the Middle/High group. She would sometimes begin with a higher-level Process Request (QPC) following it up with an easier Choice Request (QCH), as in this example. The students having responded correctly to the Choice Request, she introduced another process question.

(25:82-94)

| Speaker | C-act | Utterance |
|---|---|---|
| Teacher A | QPC | When would you use this "who"? |
| | QCH | In the middle or at the beginning? |
| Group | RCH | In the middle. |
| Teacher A | QPC | Why? Why? |
| | OSS | Stockton. |
| Student 91 | RPC | Because got little "w". |
| Student 46 | RPC | Because of little "w". |
| Teacher A | RAK | Okay. |
| | QCHQPC | Can you give me a sentence with "who" at the beginning of the sentence? |
| Student 46 | OFS | Who. |
| Student 12 | RVBRPC | Who are you? |
| Teacher A | RAG | Alright. |

In this excerpt from a Middle/High group lesson, Teacher A began with a Choice Request (QCH) for which students had only to tell her whether a sentence was "asking" (question) or "telling" (statement). When the students provided a correct answer, she then asked them to explain how they arrived at that answer (QPC).

(11:19-31)

| Speaker | C-act | Utterance |
|---|---|---|
| Teacher A | OSS | Harvey. |
| | QCH | Is it telling or asking? |
| Student 25 | RVB | Can you run? |
| Teacher A | QCH | Telling or asking? |

| | | |
|---|---|---|
| Student 23 | RCH | Telling. |
| Teacher A | QPC | How can you tell? |
| | QPC | How do you know it's an asking sentence? |
| | OSS | Carlton. |
| Student 40 | RPC | The question mark. |
| Teacher A | RAGAEX | Because there is a question mark. |
| | AEX | Also from the sound that you can tell that is an asking sentence. |
| | ADC | "Can you run?" |

A final tactic of Teacher A's which the analysis uncovered involved the use of hints in the form of descriptions (ADC). While not strictly questioning, the overall effect was that she was able to elicit more complete answers from the group. In the example below, Teacher A wanted the students to remember the word "bow," which they had been introduced to earlier. Here she used rhymes and initial sounds as clues.

| Speaker | C-act | Utterance (13:241-250) |
|---|---|---|
| Teacher A | QPR | It's called a -- ? |
| Student 51 | OFL | A . . . |
| Teacher A | ADC | It rhymes with slow. |
| Student 13 | RPR | Blow. |
| Teacher A | ADC | And it begins like |
| | OFS | And it |
| Student 11 | RPROVP | Slow-o-o. |
| Teacher A | ADC | And it begins like boy. |
| Student 52 | AID | Blow. |
| Teacher A | QPR | So what is it? (bow) |

## Use of L1 in Instruction

Perhaps the most obvious source of difference between the two instructors was in the use of the children's first language. This is an area that has been widely studied and discussed (Duran, 1981; Gumperz, 1982; Gumperz & Hernandez-Chavez, 1972; Valdes-Fallis, 1977), but little attention has been given to the actual purposes to which teachers put L1. In this study, instances in the Reading lessons in which Teacher A employed L1 were examined in context. Possible reasons why she might have chosen to alternate languages were devised and then discussed with the teacher.

Clearly, Teacher A did not employ Chinese to any great degree in her Reading lessons. The quantitative analysis revealed an average of less than seven percent over all such sampled lessons. This is in contrast to her language use in other lessons and throughout the school day, when she frequently made use of the language. Research has shown, however, that code-switching or language alternation among bilinguals is seldom random and usually

has a purpose, albeit unconscious. This was clearly the case with Teacher A, for which she used Chinese very rarely in English Reading lessons, when she did it was for a distinct reason. Teacher A told us later she tried tc avoid using Chinese during those lessons. Thus she chose those occasions for introducing Chinese very carefully.

Teacher B, of course, never spoke Chinese with the students, but perhaps more important was the fact that he often sanctioned students whenever they did. Very often, what students said in Chinese was related to the task. Unable to tell whether it was or not, however Teacher B frequently shushed students he caught speaking Chinese, assuming they were not paying attention. In one lesson, for instance, the group was discussing the seal they had seen at the aquarium. One student said the seal was fat, and Teacher B agreed. But when another repeated that in Chinese, he quietened her.

| Speaker | C-act | Utterance (15:754-758) |
|---|---|---|
| Student 13 | ADC | He too fat. |
| Teacher B | RAG | He's too fat. |
| | OBM | Now. |
| Student 12 | ADC | Hou feih. (So fat.) |
| Teacher B | PPR | Sh-h-h! |

The analysis of Teacher A's use of Chinese revealed that she employed it for at least five distinct purposes: (1) for translation, (2) as a "we-code", (3) for procedures and directions, (4) for clarification, and (5) to check for understanding. The first three of these were employed in several of the lessons, but not with the frequency of the final two, and will therefore only be briefly described. First, Teacher A used Chinese to translate particular words which students appeared not to know or were obviously beyond the range of their vocabulary. Once, for example, she used the work "aisles," but provided the Chinese equivalent as well in order to maintain students' understanding. Second, she used Chinese as what Gumperz (1982) has termed a "we-code," a language which indicates group membership and personal connection. Third, she occasionally gave procedures and directions in Chinese, e.g., to get students to use a key word in a complete sentence. The fourth and fifth uses of Chinese were to clarify and explain concepts presented in English and to check for student understanding. These final two will be treated in more detail.

Clarification. One of the new vocabulary words introduced to the Middle and High groups was the work "lost." Teacher A took care to make sure the groups understood what the word meant and in what ways it contrasted with the Chinese words for the same thing. In one lesson, two of the students appeared to confuse the transitive and intransitive uses of the English word and said, for example, "I lost one day" (18:332). In Chinese, this confusion is

not possible, since there is a different lexical item for each meaning. Teacher A paused at one point to help the group map these meanings onto the two forms in English.

| Speaker | C-act | Utterance (18:451-468) |
|---|---|---|
| Teacher A | QPR | What does "I lost my pencil" mean? |
| Student 23 | RPR | Ngoh mhginjo ngohge bat. (I don't see my pen.) |
| Teacher A | RAG | Okay. |
| | OFS | Where does, uh . . . |
| Student 25 | TRA | Mhgin yuhnbat. (Don't see pencil.) |
| Teacher A | ADC | I was lost in the park. |
| | QCH | Haih mhhaih mhginjo neih jinhgei a? (Does it mean you don't see yourself?) |
| | QCHRPC | Does it mean that? |
| Student 23 | RPC | Ngoh mhginjo hai hai park. (I can't be seen in the park.) |
| Teacher A | AEX | Mhginjo jikhaih dohng-sat-louh gam gaai. ("Can't be seen" means "got lost".) |
| | ORQ | Okay? |
| | AEX | Mhhaih wah mhginjo. (It doesn't mean "don't see".) |

Check for understanding. Teacher A also used Chinese to check for understanding. It appeared from the observations and the tapes that, at certain points, she sensed that one or more of the group did not quite understand. She thus switched to Cantonese or asked for a Cantonese equivalent from the students. In the following excerpt from a Low group lesson, students were reading English vocabulary words off the board. Suddenly she stopped and asked in Cantonese for the meaning of "likes." Students' responses reveal they had confused "likes" with "lights." The teacher then attempted to clarify using English: "He likes the dog."

This example points up an additional benefit of the teacher's facility with Cantonese. By using the students' first language, she was able to ferret out those areas of confusion and misunderstanding. By asking directly for the equivalent word in Cantonese, Teacher quickly and efficiently assessed how well the students understood. This strategy is not available to the monolingual English speaker. If a teacher not proficient in Cantonese sensed the same lack of understanding, he or she could of course ask the student to provide an English synonym or use the word in a sentence. For the limited English proficient student, however, these techniques would often be ineffectual, particularly with students like Wilson (Student 11). As Teacher A put it, he needed a lot of "language support;" he was uncomfortable using English and insecure about it. Had he therefore been asked to use "likes" or "lights" in a sentence, it is unlikely that he could

have come up with any response in English, much less an appropriate one. His level of understanding would still have been a mystery.

| Speaker | C-act | Utterance (16:230-245) |
|---|---|---|
| Student 11 | RVB | Little . . . |
| | RVB | Like . . . |
| | RVB | Likes . . . |
| Teacher A | QPR | Likes dim gaai a? (What does "likes" mean?) |
| Student 11 | RPR | Dang. (Light.) |
| Teacher A | OCQ | Ha? (What?) |
| Student 13 | RPR | Hoi dang. (Turn on lights.) |
| Student 11 | RPR | Dang. (Lights.) |
| Teacher A | RAG | No. Mhhaih. (No.) |
| | AEX | It's not lights. |
| | QVB | Likes. |
| | ADC | He likes the dog. |
| Student 11 | RPR | Ngoc Jungyi. (I like.) |
| Teacher A | RAG | Okay. |
| | RAG | Ngoc Jungyi. (I like.) |

## CHAPTER FIVE

## PASSAGE TO SECOND GRADE

As originally conceived, this project was to be conducted over one school year, from September through June. It was not possible to begin, however, until December, 1981. While this delayed start-up meant we were unable to study students as they entered first grade, it provided us with an opportunity to follow them into their second grade classroom. We were thus able to collect information on how limited English proficient Chinese children learn to cross "borders," such as summer vacation.

This portion of the study, then, represents a partial verification of the Phase Two findings. Two questions guided the data collection and analysis:

1) How do the second grade teacher's ways of constructing interactions with the same group of children compare to those of the original two teachers?

2) Does the target students' language use suggest they have had difficulty in acquiring a different teacher's rules for classroom interaction?

The first question seeks information which would help to generalize the findings from Phase Two. How did the second grade teacher's distribution of C-acts, for example, compare to those of the previous two teachers? Further, were the qualitative aspects of langauge use similar to those of either Teacher A or B, or both? The second question asks whether target students successfully adjusted to a new class and new teacher. Were their English language skills and/or knowledge of classroom rules affected by the three-month hiatus?

Methods and procedures employed with Teacher C were identical to those used in the ealier phase of the study. In the collection of data, two lavaliere microphones were placed in the middle of the reading table. Observers once again divided responsibilities as outlined in Chapter Two; one monitored the taping while the other took descriptive fieldnotes. Transcription and coding were also conducted as before. Since the same data collectors as in Phase Two continued, no additional training was found necessary. As before, all coded transcripts were entered into a computer and analyzed.

This chapter begins with an overview of Teacher C and her class, followed by a description of the findings from the analysis

of data from her lessons. Comparisons with the findings from Phase Two are made throughout.

## The Second Grade: Teacher C

Although the first grade class did not move on to the second grade as a group, most of those selected as target students for the study happened to have been assigned to the same teacher. We thus negotiated entry into the classroom of that teacher and concentrated our efforts on her lessons.

The second grade teacher (Teacher C) taught in a self-contained class. For certain subjects, such as reading and Chinese, she and another second grade teacher formed groups composed of students from both classes, but otherwise she met with the same 30 students all day long. Teacher C was Chinese and a native speaker of Cantonese. She had been teaching seven years, five of those in a bilingual class.

While we had hoped to begin taping the first week of school, Teacher C indicated that she was uncomfortable with having us observe until she had decided upon Reading group assignments. For the first two weeks, she taught all lessons in a whole group format, estimating as she did the reading level of different children. It was to be several weeks, however, before students were grouped for other subject areas, such as Chinese and Oral Language. We therefore decided to limit out data collection to the Reading lessons, but increase the number of lessons sampled. Once the Reading groups were formed, then, we began data collection as before.

### Reading Lessons

Teacher C and the other second grade teacher next door divided their combined classes into six Reading groups. Teacher C taught three of the lower groups, which were named for their reading textbooks, Amigos (low), Ups and Downs (middle), and Believe it or Not (high). Followed students and their reading group assignments are given in Table 14.

All reading lessons were conducted at the front of the room around a semi-circular table. Teacher C sat with her back to the chalkboard, facing out toward the rest of the class. The students took seats around the table in no particular order.

In general, Teacher C organized her reading activities around the lessons in the textbooks. Accompanying the book were over-sized pages which contained several sentences from the lesson and an illustration. Teacher C usually placed one of these in the chalkrail and referred to it in the course of the lesson. Students were often asked to read aloud from the oversized pages, wither individually or as a group.

Table 14

Target Students' Second Grade Reading Group Assignments

| Students | Grade One | Grade Two |
|---|---|---|
| 11 | Low | Mid |
| 12 | Low | Mid |
| 13 | Low | -- |
| 15 | Low | Low |
| 16 | Low | Low |
| 21 | Mid/High | High |
| 22 | Mid/High | Mid |
| 23 | Mid/High | -- |
| 24 | Low | Low |
| 25 | Mid/High | -- |
| 31 | Mid/High | -- |

Observers' overall impression of Teacher C's lessons was that they were highly structured and orderly. Students normally took turns reading and answering questions about what they had read.

## Quantitative Analysis

A total of nine of Teacher C's lessons were analyzed, three for each reading group. The number of minutes of recorded data collected in the third phase of the study is given in Table 15. This accounts for an additional two hours of tape and another 5000 coded utterances.

Although the number of lessons recorded was roughly equivalent to that for the other two teachers (11 for A; 8 for B), the average time of each was somewhat less. Teacher A's lessons averaged 17 minutes and Teacher B's nearly 20, while Teacher C's were only about 14 minutes long.

Table 15

Amount and Proportion of Talk in Second Grade Reading

| | Proportion | | Amount | |
|---|---|---|---|---|
| | Teacher A | Target Student Avg. | Minutes | Utterances |
| High | 0.65 | 0.04 | 41 | 1282 |
| Middle | 0.64 | 0.08 | 37 | 1307 |
| Low | 0.64 | 0.08 | 51 | 1909 |
| | | Total | 129 | 4498 |

Also reported in Table 15 are the relative proportions of talk for the teacher and target students. As can be seen, Teacher C was very consistent in accounting for nearly two-thirds of the utterances with each group. This figure is highter than that for either A or B, who spoke closer to half. The proportion of target student talk was similar to that found in the other classes.

Teacher Language Use

One of the questions asked in Phase Three concerned the comparability of Teacher C's use of language with that of the other two teachers. One way in which this question will be addressed is in regard to the relative proportion of various Conversational-acts in her speech. In Table 16 are given the proportions for those C-acts most frequently used by any of the three teachers. Proportions less than five percent are enclosed in parentheses. In Chapter Three, comparisons were made both between and within (across instructional groups). This pattern is followed here as well.

Between Teacher Comparisions. In Chapter Three, comparisons across Teacher A and B were made by group, middle/high and low. Grouping in Teacher C's class, however, was not exactly comparable to that in the other teacher's classes. She and the other second grade teacher formed six groups out of the combination of both classes; the three lowest groups were instructed by Teacher C, while her colleague taught the upper three. Teacher C's groups were made up of a combination of limited English proficient students and native speakers had some difficulty in reading.

Because of the different grouping patterns in the second grade class, in interpreting Table 16, it is perhaps more useful to simply seek patterns of consistency and exception across all groups, rather than make group-by-group comparisons.

It should be pointed out, however, that for Teacher C, the six or seven most frequent C-acts were identical for all three groups: Complete Descriptions (ADC), Boundary Markers (OBM), Speaker Selections (OSS), Requests for Action (QAC), Product Requests (QPR), and Agreement Responses (RAG). Their rank order varied somehwat across groups, but not significantly (see Table 16).

This suggests, of course, that Teacher C constructed her discourse and interaction in a consistent manner, regardless of the reading level of the group. One interesting exception is the relatively high proportion (.06) of Process Requests (QPC) used with the high group. With the more proficient students, she asked questions which required more thought. This reflects the pattern found in Teacher A's language use as well.

Table 16

Teachers' Use of C-acts: Proportions

| | Teacher C | | | Teacher A | | Teacher B | |
|---|---|---|---|---|---|---|---|
| C-Act | Low | Middle | High | Low | Mid/Hi | Low | Mid/Hi |
| ADC | 0.09 | 0.07 | 0.07 | 0.09 | 0.13 | 0.11 | 0.09 |
| OAG | (0.02) | (0.01) | (0.02) | (0.02) | (0.01) | 0.06 | (0.02) |
| OBM | 0.09 | 0.10 | 0.11 | 0.08 | 0.08 | 0.10 | 0.07 |
| OSS | 0.10 | 0.10 | 0.07 | 0.06 | 0.07 | (0.02) | 0.07 |
| PPR | (0.00) | (0.00) | (0.00) | (0.03) | (0.01) | 0.07 | 0.05 |
| QAC | 0.05 | 0.07 | 0.06 | 0.11 | 0.06 | 0.13 | 0.09 |
| QCH | 0.05 | (0.03) | (0.04) | 0.07 | 0.08 | 0.06 | (0.04) |
| QPR | 0.15 | 0.14 | 0.12 | 0.12 | 0.09 | 0.10 | 0.11 |
| QPC | (0.01) | (0.02) | 0.06 | (0.03) | (0.04) | (0.02) | (0.02) |
| RAG | 0.15 | 0.15 | 0.15 | 0.10 | 0.09 | 0.05 | 0.11 |
| RAK | (0.03) | (0.03) | (0.02) | (0.02) | (0.02) | 0.07 | 0.05 |

Consider now the C-act proportions across teachers. First, certain C-acts were used to a high degree by all teachers with each group; these were Complete Descriptions (ADC), Boundary Markers (OBM), and Product Requests (QPR). Two other C-acts, Speaker Selections (OSS) and Agreement Responses (RAG), occupied a relatively large portion of the speech of Teachers A and C, and Teacher B with his middle/high students. With the low Oral Language group, however, they took up only two and five percent of his talk.

With the exception of Teacher B with his low group, it seems that these five C-acts somehow form a common basis for teacher talk in directed activities. Teachers describe and explain (ADC), mark off lesson parts (OBM), allocate student turns (OSS), ask factual questions (QPR), and give feedback (RAG). From the point of view of language function, these are the building blocks of a teacher's lesson.

As was discovered in the Phase Two analysis, Teacher B used a somewhat different array of Conversational-acts with his low group. Obviously, the proportion of his speech not devoted to the five C-acts mentioned above was diverted to some other purpose.

Teacher B used Attention Getters (OAG), Protests (PPR), and Acknowledgements (RAK), where the others did not. Two of these three C-acts were described as indicators of a lack of group control. Because Teacher B was unable to manage the low group adequately, he frequently sought students' attention and sanctioned their off-task behavior. The high proportion of Acknowledgements, rather than Agreements, suggested that the overall feedback supplied by Teacher B carried little useful information.

In contrast, notice that Teachers A and C allocated no more than two percent of their talk to Attention Getters. As for Protests, Teacher C had virtually none (raw frequencies across groups totaled 7 out of 2892 utterances). While Acknowlegements were employed somewhat, they were far outnumbered by Agreements, which accounted for fully 15 percent of Teacher C's utterances with each group. In fact, Agreements were the C-act she used most often.

In regard to the distribution of C-acts employed by Teacher C, it appears that she was in many respects similar to Teacher A, and Teacher B with his higher group. In fact, the pattern of C-acts across these six groups is remarkably consistent. By the same token, when Teacher C's speech is compared to Teacher B's low group, none of the apparent management difficulties he experienced show up.

Students' Language Use

Analyses were conducted on students' language use as in Phase Two. Conversational-act rates and proportions for Phase Three are given in Table 17. In Phase Two, the focus of the analysis and interpretation of results was on variations across groups. In this phase, we diverge somewhat from that approach. First, the second grade groups represent a more limited range of student proficiencies. Second, the primary question regarding students' language use in Phase Three was whether they showed confusion over the teacher's rules for instruction and interaction; whether they had difficulty in crossing the border to second grade. In this section, therefore, we mainly explore the degree to which student language appears to complement and coincide with that of the teacher. Where contrasts across groups appear significant, however, they will be pointed out.

As in the analysis of teachers' language, certain C-acts were common to all, or most, of the instructional groups in Phase Three, e.g., Product Responses (RPR) and Complete Descriptions. The first of these accounted for over 30 percent of target students' speech in each group. They were also prominent in students' speech in the first grade lessons, although at a lower proportion. In the various reading lessons with Teachers A and C, Verbal Responses (RVB) were frequently used, although the highest of the second grade groups had a proportion of only five percent.

These data indicate that in all teacher-directed lessons, students responded to informational questions, and in reading lessons they often read aloud or repeated words and phrases.

Certain other C-acts are of interest because of their low level of occurrence in Phase Three. Recall that a critical distinction of students' language in Teacher B's low group was the high incidence of Attention Getters (OAG) and Verbal Play (OVP). In Teacher C's lessons student used these almost never, suggesting that, even more than in Teacher A's class, they were attending to the tasks at hand.

Finally, notice the high proportion of Process Responses (RPC) found in the high group (15%). Compared to the number of higher-level responses elicited in the other lessons in the study, this is a remarkably high figure. Apparently, Teacher C was able to get even limited English proficient students to answer questions that required some thought.

## Qualitative Analysis

Qualitative analyses were also conducted as in Phase Two. Transcripts were examined for evidence of C-acts and patterns of C-acts that appeared to be significant in the quantitative analysis. Additionally, the same dimensions of classroom language use were explored: group management (including clarity of intructions and rules for interaction), questioning strategies, and the use of Chinese. Other features which appeared to be particularly salient in Teacher C's lessons are also mentioned.

### Group Management

The quantitative analysis, as well as the observers' accounts of the lessons, indicated that Teacher C was a very efficient manager of her lessons. Intructions were clearly given, and students seemed to have already learned the teacher's rules and were following them carefully. There were only a few off-task utterances by students, turn-taking was orderly, and lessons moved along at a reasonble pace. These indications were borne out in the qualitative analysis of the lessons transcripts.

Table 17

Students' Use of C-acts: Second Grade

| | Low Group | | Middle Group | | High Group | |
|---|---|---|---|---|---|---|
| C-act | Rate | Prop. | Rate | Prop. | Rate | Prop. |
| ADC | 10.84 | 0.06 | 11.29 | 0.07 | 10.29 | 0.13 |
| AID | 6.02 | 0.03 | 3.23 | 0.02 | 5.88 | 0.07 |
| AIR | 3.61 | (0.02) | 3.23 | (0.02) | 1.47 | (0.02) |
| OAG | 6.02 | (0.03) | 0.00 | (0.00) | 0.00 | (0.00) |
| OCQ | 2.4 | 0.01 | 8.06 | 0.05 | 0.00 | 0.00 |
| OFL | 3.61 | (0.02) | 1.61 | (0.01) | 1.42 | (0.02) |
| OFS | 0.00 | (0.00) | 9.68 | 0.06 | 4.41 | 0.05 |
| QPR | 3.61 | (0.02) | 0.00 | (0.00) | 4.41 | 0.05 |
| OVP | 0.00 | (0.00) | 0.00 | (0.00) | 1.47 | (0.02) |
| QAC | 0.00 | (0.00) | 0.00 | (0.00) | 0.00 | (0.00) |
| RCH | 13.25 | 0.07 | 11.29 | 0.07 | 1.42 | (0.02) |
| RPC | 1.20 | (0.01) | 4.84 | (0.03) | 11.76 | 0.15 |
| RPR | 65.06 | 0.36 | 56.45 | 0.33 | 25.00 | 0.31 |
| RVB | 51.81 | 0.29 | 46.77 | 0.28 | 4.41 | 0.05 |

Clarity of instructions. Teacher C consistently made the instructional task clear to her students. In the following excerpt from this low group lesson, for example, we can see the way in which Teacher C introduced an instructional task. First, she made sure the students knew the page number, and gave them the overall task. This task of discussion is reminiscent of those found in Teacher B's lessons, but the way it was conducted is very different. Teacher C next complimented A-Chin for following directions, which she repeated, and provided background information on the focus of the task, the name-chain. Finally, she directed their attention to the "A" and asked a question.

| Speaker | C-act | Utterance (33:340-360) |
|---|---|---|
| Teacher C | APR | Today we are going to read page sixteen. |
| | APR | We are going to look at page sixteen, and we are going to talk about it. |
| Student 91 | AID | Page thirty-five. |
| Student 92 | RAG | Not twenty-five. |
| Teacher C | AID | Page sixteen. |
| Student 54 | OVP | Yeah, yeah. |
| Teacher C | ADC | I like the way A-Chin follows directions. |
| | ADC | She turns to the correct page right away, and waits for directions. |
| Student 48 | AID | Sixteen. |
| Teacher C | OBM | Okay. |
| | ADC | On page sixteen, we have something called a name, name chain. |
| Student 48 | AID | A name chain. |
| Teacher C | AEX | Name-chain. A chain is something that you connect one by one, and you lead from the beginning to the end. |
| | APR | We are going to use a-b-c's here. |
| | QAC | Look at "A". |
| | QPR | What picture is under "A"? (students raise hands) |
| | OSS | A-chin. |

In the next example, also from the lowest group, a similar concern for clarity is evident. In this case, the teacher was leading the students through an excercise in their reading text. Teacher C read the directions for the students first, and then for each question, asked a student to first read the question, then all three choices, before giving an answer. This not only insured that they considered all alternatives, but gave them further practice in reading as well.

| Speaker | C-act | Utterance (36:187-196) |
|---|---|---|
| Teacher C | ADC | These are the questions for "Mouse wants a friend." |
| | ARU | Now it says, read the question about the picture, draw line under the correct answer. |
| | OBM | Alright. |
| | AID | Number one. |
| | QVB | Read me the question. Read me the three answers and choose the best answer. |
| | OPM | The first one, please, |
| | OSS | Anh-quoc. |

Rules for interaction. Teacher C was no less clear in her establishment and maintenance of rules for interaction. In virtually every lesson observed and taped, she followed a consistent pattern of asking students to bid for turns. Her signals seldom consisted of an explicit call for bids, however; more often, she did so with a question, or by reference to a question number in the book or worksheet. In the first example given above, for instance, Teacher C simply asked, "What picture is under 'A'?" and several students raised their hands. In the second excerpt, she merely referred to the first question and got a similar response.

This is not to say that Teacher C never stated rules for interaction, as the following example shows. In addition, she C used some of the same techniques found in Teacher A's speech, such as denying turns to those who spoke out of turn: "I'm not going to call on you unless you can follow the directions" (33:631). On another occasion, she accepted Stanley's answer, but told him that next time he should raise his hand; and with the higher group even said, "Hands up" (34:406). Teacher C was also found to be aware of equally distributing turns: "Anybody else? Did I get you already?" (33:774-784).

| Speaker | C-act | Utterance (32:461-469) |
|---|---|---|
| Teacher C | QPC | What's happening in the picture? |
| Student 91 | AIR | I don't know. |
| Student 44 | AIR | I know. |
| Teacher C | QAC | Raise your hand if you know what's happening in the picture. |

Questioning Strategies

Teacher C employed some of the same qusetioning strategies as the other two teachers. After students identified a picture, for example, Teacher B sometimes threw out a Process Request (QPC), such as "How do you use it?" This, he would then follow up with simpler Choice (QCH) and Product (QPR) Requests. In a similar fashion, Teacher C, in the following excerpt, first established that a pictured animal was a raccoon; then she immediately inquired how the students knew. To assist them with this more conceptual "why" question, she provided a hint in the form of a Product Request (QPR) about the raccoon's face.

| Speaker | C-act | Utterance (33:529-545) |
|---|---|---|
| Teacher C | AID | It's a raccoon. |
| | QPC | How do you know it's a raccoon? |
| | QPR | What does he have on his face? |
| | OSS | Hieu-nan. |
| Student 10 | RPR | Black eyes. |
| Student 24 | RPR | Black eyes. |
| Teacher C | RAG | He has black eyes. |

| | | |
|---|---|---|
| Student 48 | RAG | No, he got a mask. |
| Teacher C | ADC | He looks like he wears his holloween mask everyday. |
| Student 10 | RAG | Yeah. |
| Teacher C | AEX | He wears a mask everyday, and that's how you know he's a raccoon. |
| Student 48 | ADC | He got a tail. |
| Teacher C | OSS | Vickie. |
| Student 54 | ADC | He has whisker. |
| Teacher C | RAG | He has whiskers too, |
| | ORQ | right? |

One strategy used by Teacher A was to question students about their reasons for an answer, using a Process Request (QPC). THis strategy was found in Teacher C's lessons as well. In the following passage, Teacher C was reviewing spelling rules. After a student correctly spelled "turned," she asked the group why the child had not added another "n".

| Speaker | C-act | Utterance (32:84-95) |
|---|---|---|
| Teacher C | QSU | Could you spell the word "turned" for me, |
| | ADC | like a "We turned the chair around." |
| Student 37 | RPR | t-u-r-n-e-d. |
| Teacher C | RAG | E-d. |
| | OBM | Alright now. |
| | ADC | She didn't add another "n" here. |
| | OBM | Now. |
| | QPC | Why not? |
| | QPR | Who can tell us? (students raise hands) |
| | OBM | Alright. |
| | OSS | Lonna. |
| Student 43 | RPC | Because they don't got any vowel letter. |

# CHAPTER SIX

## DISCUSSION

The study considered in detail the interaction and language use of a group of Chinese-American students and their two teachers. In the pages that follow, I will summarize the findings and attempt to bring together those elements of the findings which may have implications for instruction in bilingual settings.

In Phase One of the study, two teachers and target students were selected. Then in Phase Two, audiorecordings of teacher-directed lessons were made in the two classrooms, but with the same groups of students. Data from this phase were analyzed both quantitatively and qualitatively.

One thing evident from this analysis was that both teachers, despite certain differences, were creating instructional tasks for the students. Both teacher and student language was made up of a distribution of questions, answers, responses, and so on. In Oral Language, the task was largely one of question-and-answer exchanges between the teacher and students; in Reading, students spent some amount of their time reading aloud. On the surface, the lessons looked very much like first grade lessons in any other public school. However, as the analysis probed deeper, some distinctions emerged.

One goal of the Phase Two analysis was to investigate the notion that between teacher differences are stronger than those within. Here, it was discovered that Teacher B's speech across groups varied more than did his and that of Teacher A. A good portion of these across group differences were in the area of management and control. C-acts which had to do with sanctioning, attention-getting and protesting occurred in higher frequency with the limited-English-speaking group.

This finding might be due to a combination of factors. First, and most obvious, is the fact that he spoke no Chinese and was thus unable to communicate with the children in their first and dominant language. An unfortunate outcome of this situation was that Teacher B often sanctioned the use of Chinese, since as far as he could tell all uses were unrelated to the lesson tasks. Even though Teacher A employed Chinese only a small portion of the time in reading lessons -- less than seven percent -- she carefully selected those occasions on which she did. She made a conscious effort to use Chinese as little as possible during English reading. She employed Chinese for a variety of purposes; the "we-code" function was only one of several. Most of the time, in fact, she used it for clarification and to further understanding. Her use of the language revealed a sensitivity to the

variable meanings in Chinese and English that made it possible for her to pick out likely sources of confusion.

This was something Teacher B could not do. Even when students were obviously confused, he was often unable to get at the root of the problem, simply because of the language barrier. Many times the confusion arose because students in the Low group had difficulty making themselves understood, and lacked the English skills necessary to rephrase their statements. Clearly, had Teacher B been able to better communicate with the Low group, he might have avoided the frequent loss of student attention. So, while neither of the bilingual teachers used Chinese to any large degree -- Teacher C almost not at all -- the understanding of the students' first language, and its availability as an alternative code, did appear to be an important variable in the lessons observed.

The data from Teacher B's class serve to point up just how difficult teaching non- and limited-English-speaking children can be for teachers who do not speak their first language. The task of communicating with them becomes formidable indeed. If they have one, teachers have been known to delegate the instruction of NES/LES students to a bilingual instructional aide (Fillmore, 1982). Teacher B's aide was a monolingual English speaker and thus no more equiped than he to deal with the LES/NES children.

A second factor which must have contributed to Teacher B's management problems -- and is no doubt related to the first -- had to do with the participation structures (Philips, 1972) and rules for turn-taking he employed in the two groups. Both observations and lesson transcripts show that the High group was required to raise their hands for a turn, but that the Low group was not. In those lessons, any student could call out an answer. As long as only one or two children responded, this procedure worked, but as more students sought a chance to speak, chaos broke out. Judging from the procedures used with the other group, it is likely that a more structured turn-taking mechanism had been used, and had simply broken down. If, because of limited English proficiency, students in the Low group were unable to respond individually to the teacher's questions, he might have relaxed the rules so that he might at least get an answer from someone. In Teacher A's lessons, both High and Low, turn-taking was controlled, either by bidding or teacher assignment. It may be, therefore, that if Teacher B imposed a more rigid structure on the Low group activities, student attention would follow.

Findings from other studies of turn-distribution are relevant here. McDermott (1976), for example, also found a difference in turn-taking procedures across high and lwo reading groups, but of a different order. The high group in his study took turns in a round-robin fashion, one after the other, insuring an equal number of turns for each student. The low group, on the other hand, bid for turns, much like Teacher B's upper group. McDermott concluded that since turns had to be constantly renegotiated in the low

group, valuable lesson time was lost. In regard to structure, then, Teacher B's low group is even one more level removed from the orderliness of high group in McDermott's study. In Teacher B's low group, turns were not even renegotiated, but simply claimed. As several students sought to claim a turn simultaneously, the order of the group fell apart and the teacher lost control.

Recent research on instruction has shown that "direct instruction" or "active teaching" can be highly effective with certain groups of students. This would appear to be the case with limited English speaking Chinese students. Traditional Chinese schools are, after all, highly structured, and it could be that as the rules for participation in Teacher B's lessons were relaxed, the students' definition of the situation changed. This is borne out in their differential behavior in Teacher B's class, as opposed to the more structure lessons or Teachers A and C.

Variations in questioning strategies employed by the teachers also emerged in the analysis. Using the quantitative findings as a guide, patterns and sequences of requests in the teachers' language were examined. Once again, the Low group received differential treatment in Oral Language. Teacher B appeared to be particularly skilled in sequencing and mixing questions with the students more proficient in English. With the others, however, sustained exchanges were rare, and his requests were restricted to the simplest questions of fact and identification. He seldom made an effort to extend what low group students said.

As with other factors, the overall questioning behavior of the two bilingual teachers matched that of Teacher B with his better students. Like him, they used a technique in which a Process Request is followed-up with simpler Product and Choice Questions. Of all three, the second grade teacher used a greater proportion of the more demanding requests that sought explanations and reasons.

The strongest difference in student language emerged in Teacher A's lessons -- despite the fact that her C-acts to them was very similar. The contrasts between the three groups of students indicated a difference in task demands. In the low group, students were primarily engaged in decoding single words. In the high group, students read longer segments of text and discussed its meaning. Whether these contrasts are evidence of the sort of differential access to reading described by Guthrie and Hall (1983), McDermott (1976, 1978), Collins (1982), and others remains to be seen. Further investigation of the data will be required.

In the following school year, it was possible to follow most of the target students to their second grade classroom. This part of the study constituted Phase Three. Its goal was threefold. First, we sought to verify those findings in regard to teacher and student language in Phase Two. What characteristics did the language use in Teahcer C's lessons have? Secondly, we sought to

discover whether target students experienced difficulty in acquiring a different teacher's rules for classroom interaction.

In the students' second grade class, the interactions were in many ways similar to those with Teacher A, but in some ways they were different from both the first year teachers. Teacher C (the second grade teacher) was at least as structured as Teacher A in her lessons. The instructional and interactional patterns were clear-cut and organized. Rules for turn-taking were explicit and the teacher appeared to have very good control over the three groups taped. She had, for example, very few Attention Getters (OAG). She had more Speaker Selections (OSS) with the Lower groups, perhaps because turn-taking in the High group was in order. Teacher C also used a higher frequency of Process Questions (QPC) than either of the other teachers, and like Teacher A, she employed more of these with the higher groups.

Student language in Teacher C's group was similar to that in the Middle/High group in the earlier grade. In other words, there was very little off-task talk or verbal play. Students appeared to have suffered not at all from crossing the "border" of summer into second grade and knew the rules very well, at least by the third week of school.

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## APPENDIX A:

## CODES, DEFINITIONS AND EXAMPLES OF CONVERSATIONAL ACTS

## Codes, Definitions, and Examples of Conversational-Acts

| Code | Definition and Examples |
|---|---|
| | **Assertives** report facts, state rules, convey attitudes, etc. |
| AAT | Attibutions report beliefs about another's internal state: "He does not know the answer."; "He wants to."; "He can't do it." |
| ADC | Descriptions predicate events, properties, locations, etc. of objects or people: "The car is red."; "It fell on the floor."; "We did it."; "We have a boat." |
| AEV | Evaluations express personal judgments or attitudes: "That's good." |
| AEX | Explanations state reasons, causes, justifications, and predictions: "I did it because it's fun."; "It won't stay up there." |
| AID | Identifications label objects events, poeople, etc.: "That's a car."; "I'm Robin." |
| AIR | Internal Reports express emotions, sensations, intents, and other mental evnts: "I like it."; "It hurts."; "I'll do it."; "I know." |
| APR | Predictives states expectations about future events, actions, etc.: "I'll give it to you tomorrow."; "It'll arrive later this week." |
| ARU | Rules state procedures, definitions, "social rules," etc.: It goes in here."; "We don't fight in school."; "That happens later." |
| | **Organizational Devices** control personal contact and conversational flow. |
| OAC | Accompaniments maintain contact by supplying information redundant with respect to some contextual feature: "Here you are"; "There you go." |
| OAG | Attention Getters solicit attention: "Hey!"; "John!"; "Look!" |
| OBM | Boundary Markers indicate openings, closings, and shifts in the conversation "Okay"; "All right"; "By the way." |
| OCQ | Clarification Questions seek clarification of prior remark: "What?" |
| OEX | Exclamations express surprise, delight, or other attitudes: "Oh!"; "Wow!" |
| OFL | Fillers enable a speaker to maintain a turn: "...well..."; "...and uh..." |
| OFS | False Starts indicate aborted utterances: "We... they" |

OPM Politeness Markers indicate ostensible politeness: "Please"; "Thank you."

ORQ Rhetorical Questions seek acknowledgement to continue: "Know what?"

OSS Speaker Selections label speaker of next turn: "John"; "You."

OVP Verbal Play indicate language in which meaning is secondary to play.

---

Performatives accomplish acts (and establish facts) by being said.

PBT Bets express conviction about a future event: "I bet you can't do it."

PCL Claims establish rights for speaker: "That's mine"; "I'm first."

PJO Jokes cause humorous effect by stating incongrous information, usually patently false: "We throwed the soup in the ceiling."

PPR Protests express objections to hearer's behavior: "Stop!"; "No!"

PTE Teases annoy, taunt, or playfully provoke a hearer: "You can't get me."

PWA Warnings alert hearer of impending harm: "Watch out!"; "Be careful!"

---

Requestives solicit information or actions.

QAC Action Requests seek the performance of an action by hearer: "Give me it!"; "Put the toy down!"

QCH Choice Questions seek either-or judgments relative to propositions: "is this an apple?"; "Is it red or green?"; "Okay?; "Right?"

QMA Requests for Mental Action seek specific mental activity by the hearer: "Think"; "Remember."

QPC Process Questions Seek extended descriptions or explanations: "Why did he go?"' "How did it happen?"; "What about him?"

QPM Permission Requests seek permission to perform action: "May I go?"

QPR Product Questions seek information relative to most "WH" interrogatives" "Where's John?"; "What happened?"; "Who?" "When?"

QSU Suggestions resommend the performance of an action by hearer or speaker or both: "Let's do it!"; "Why don't you do it?"; "You should do it."

QVB Verbal Action Requests seek performance part of an instructional routine such as reading aloud, conducting language-learning exercises, repeating, or spelling: "Read this word"; "Repeat after me"; "I go, you go, he ...."

Responsives supply solicited information or acknowledge remarks.

RAG Agreements agree or disagree with prior non-requestive act: "No, it is not!"; "I don't think you're right."

RAK Acknowledgements recognize prior non-requestives and are non-commital: "Oh"; "Yeah."

RCH Choice Answers Provide solicited judgments of propositions: "Yes."

RCL Clarification Responses provide solicited confirmations: "I said no."

RCO Compliances express acceptance, denial, or acknowledgement of requests: "Okay"; "Yes"; "I'll do it."

RPC Process Answers provide solicited explanations: "I wanted to."

RPR Product Answers provide Wh-information: "John's here"; "It fell."

RQL Qualifications provide unsolicited information to requestives: "But I didn't do it"; "This is not an apple."

RVB Response to Requests for Verbal Action provide solicited speech, such as reading aloud, repeating in chorus, or spelling.

---

Special Speech Acts are prescribed utterances expressed in a special way.

SAC Counting indicates naming numerals or counting objects.

SAL Laughing codes laughter.

SAS Singing indicates singing, either words or sounds.

MKE Microphone talk codes speech directed at the tape recorder microphone, often silly or nonsensical.

NVB Nonverbals code important nonverbal acts.

TRA Translation codes conscious, direct translations.

UNT Uninterpretables indicate uncodable utterances.

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# APPENDIX B:

# SAMPLE LESSON TRANSCRIPT

.Teacher A: Low Group Reading

Lesson 7

1: Feb. 11th, 1982
2: CLASS 19 MINS. ENGLISH READING (FLINTSTONE)
3: 99RVB * 2 Sit, site.
4: 32UNT * 0 ! !
5: 01QAC * 6 All on the board here now,
6: 01PPR * 4 I don't hear Hieu-Nghi.
7: 99RVB * 5 Sit, site, little, like, look.
8: 52RVB * 2 Sit, like,
9: 52SAS * 3 On top a (singing).
10: 01RAG * 1 Okay.
11: 01QCH * 5 Can you use this in a sentence?
12: 01QSS * 1 Hieu-Nghi.
13: 24RCH * 1 Yes.
14: 52SAS * 0 (Henrietta is still singing).
15: 01QVB * 6 Use this word in a sentence
16: 24RVB * 1 Can.
17: 52SAS * 0 (Henrietta is still singing).
18: 01QVB c 5 做句連作最 [Make a sentence for me.]
19: 24RVB * 3 Can you ride?
20: 52SAS * 0 (Henrietta singing).
21: 01QSS * 1 Wyman.
22: 11QPS * 1 I
23: 01QAG * 1 Henrietta.
24: 01PPRQSUe 4 Would you sit down
25: 01QPH * 1 please?
26: 11RVB * 3 I can't ride.
27: 01QVB * 1 But.
28: 11RVB * 4 But I can ride.
29: 01RAG * 1 No.
30: 01QVB * 6 I can't ride, but I can
31: 24RVB * 1 jump.
32: 01AEV * 4 That's a good one.
33: 01TRAQPCc 11 唔能夠坐車,但能夠之嘢? [Can't ride a bike, but can do
34: what?]
35: 16RVB c 1 讀 [read.]
36: 24RAG c 2 唔係 [No.]
37: 01AID * 1 Jump.
38: 24AID c 3 能夠走 [can walk.]
39: 01AID * 1 Jump
40: 15RAG c 1 跳 [Jump.]
41: 24RAG c 1 跳 [Jump.]
42: 01RAG * 1 Okay,
43: 01QSS * 1 Hieu-Nghi.
44: 01QAG * 1 Ah-Ngat
45: 01PPRQSUe 7 you want to go to your seat.
46: 01PPRQSUe 7 You want to put your head down.
47: 01QRQ * 1 Ha.
48: 01PPRQSUe 3 you want to?
49: 01QCH * 3 Are you sure?
50: 01QBM * 1 Okay.

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| | | | |
|---|---|---|---|
| 51: | 01UNT | e 0 | ? |
| 52: | 01QPC | e 5 | What does this word mean? |
| 53: | 01QPC | e 8 | Can you use this word in a sentence? |
| 54: | 16DAG | e 1 | Ha. |
| 55: | 01UNT | e 0 | ? |
| 56: | 01QPR | m 8 | 你知唔知 [Do you know] what does sit mean? |
| 57: | 01QPR | e 4 | What does sit mean. |
| 58: | 01DSS | e 1 | Ah-Ngat. |
| 59: | 13RPR | e 1 | sit. |
| 60: | 01QPR | e 4 | What does sit mean? |
| 61: | 13RPR | c 2 | 坐低! [Sit down.] |
| 62: | 52DVP | c 2 | 坐低! [Sit down.] |
| 63: | 01QVB | c 5 | 做句嘢畀我睇 [Make a sentence for me.] |
| 64: | 16AIR | e 2 | I know. |
| 65: | 52DVP | e 2 | [Sit down.] |
| 66: | 01DAGDSSe | 1 | My-Damn. |
| 67: | 16RVB | e 4 | The little boy sit. |
| 68: | 01RAG | e 4 | The little girl sits. |
| 69: | 01AIDDVBe | 3 | Use this one |
| 70: | 01DRQ | e 1 | okay (T points to runs). |
| 71: | 01QVB | e 4 | How about this one? (T points to runs). |
| 72: | 01DSS | e 1 | Hiew-Ngm. |
| 73: | 24DFS | e 2 | I. No. |
| 74: | 24RVB | e 4 | The little dog run. |
| 75: | 24DFS | e 1 | run. |
| 76: | 24RDL | e 1 | runs. |
| 77: | 01DSS | e 1 | Henrietta. |
| 78: | 52DCC | e 1 | Who? |
| 79: | 01QVB | e 3 | Use this word in a sentence. |
| 80: | 01QVB | e 4 | What is this word? |
| 81: | 52RVB | e 1 | little |
| 82: | 01RAG | e 3 | This isn't little. |
| 83: | 01AID | e 5 | This is "rides a bike." |
| 84: | 52RVB | e 1 | like. |
| 85: | 01DBM | e 1 | Okay. |
| 86: | 01QCH | e 7 | Can you use this in a sentence? |
| 87: | 01UNT | e 0 | ? |
| 88: | 52UNT | e 2 | I like. |
| 89: | 01QVB | e 3 | I like what? |
| 90: | 52RVB | e 3 | I like you. |
| 91: | 52RVB | e 3 | to ride bike. |
| 92: | 01RAG | e 6 | I like to ride a bike. |
| 93: | 01DBM | e 1 | Okay. |
| 94: | 01QVB | e 4 | What this word is? |
| 95: | 16DAGAIRe | 2 | I know. |
| 96: | 01DSS | e 1 | Wyman. |
| 97: | 11RVB | e 1 | likes. |
| 98: | 01QCH | e 4 | You need some water? |
| 99: | | e 0 | ? (Tape unclear) |
| 100: | 24AIR | e 5 | I need some water too. |
| 101: | 01QVB | e 4 | What is this word. |

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| | | | |
|---|---|---|---|
| 51: | 01UNT | e 0 | I |
| 52: | 01QPC | e 5 | What does this word mean? |
| 53: | 01QPC | e 8 | Can you use this word in a sentence? |
| 54: | 16DAG | e 1 | Me. |
| 55: | 01UNT | e 0 | I |
| 56: | 01QPR | m 8 | 你知唔知 [Do you know] what does sit mean? |
| 57: | 01QPR | e 4 | What does sit mean. |
| 58: | 01QSS | e 1 | Ah-Ngat. |
| 59: | 13RPR | e 1 | sit. |
| 60: | 01QPR | e 4 | What does sit mean? |
| 61: | 13RPR | c 2 | 坐低 [Sit down.] |
| 62: | 52QVP | c 2 | 坐低 [Sit down.] |
| 63: | 01QVB | c 5 | 做句嘢畀我睇 [Make a sentence for me.] |
| 64: | 16AIR | e 2 | I know. |
| 65: | 52QVP | e 2 | [Sit down.] |
| 66: | 01QAGQSSe 1 | | My-Danh. |
| 67: | 16RVB | e 4 | The little boy sit. |
| 68: | 01RAG | e 4 | The little girl sits. |
| 69: | 01AIDQVBe 3 | | Use this one |
| 70: | 01QRQ | e 1 | okay (T points to runs). |
| 71: | 01QVB | e 4 | How about this one? (T points to runs). |
| 72: | 01QSS | e 1 | Hieu-Nghi. |
| 73: | 24QFS | e 2 | I. No. |
| 74: | 24RVB | e 4 | The little dog run. |
| 75: | 24QFS | e 1 | run. |
| 76: | 24RQL | e 1 | runs. |
| 77: | 01QSS | e 1 | Henrietta. |
| 78: | 52QCQ | e 1 | Who? |
| 79: | 01QVB | e 3 | Use this word in a sentence. |
| 80: | 01QVB | e 4 | What is this word? |
| 81: | 52RVB | e 1 | little |
| 82: | 01RAG | e 3 | This isn't little. |
| 83: | 01AID | e 5 | This is "rides a bike." |
| 84: | 52RVB | e 1 | like. |
| 85: | 01QBM | e 1 | Okay. |
| 86: | 01QCH | e 7 | Can you use this in a sentence? |
| 87: | 01UNT | e 0 | I |
| 88: | 52UNT | e 2 | I like. |
| 89: | 01QVB | e 3 | I like what? |
| 90: | 52RVB | e 3 | I like you. |
| 91: | 52RVB | e 3 | to ride bike." |
| 92: | 01RAG | e 6 | I like to ride a bike. |
| 93: | 01QBM | e 1 | Okay, |
| 94: | 01QVB | e 4 | What this word is? |
| 95: | 16QAGAIRe 2 | | I know. |
| 96: | 01QSS | e 1 | Wyman. |
| 97: | 11RVB | e 1 | likes. |
| 98: | 01QCH | e 4 | You need some water? |
| 99: | | e 0 | I (Tape unclear) |
| 100: | 24AIR | e 5 | I need some water too. |
| 101: | 01QVB | e 4 | What is this word. |

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~~102: 16RVB # 1 likes.~~
103: 11RVB # 1 like
104: 52RVB # 1 likes
~~105: 72RVB # 2 like, like~~
106: 01QCH # 8 Can you use this word in a sentence?
107: 52RVB # 2 Like, likes.
~~108: 01QVB # 5 [illegible] [Make a sentence for me.]~~
109: 11RVB # 2 I like.
110: 01RAG # 3 Yes, I like.
~~111: 01UNT # 6 . . . . .~~
112: 01QVB # 1 He.
113: 99RVB # 2 He likes.
~~114: 11RVB # 4 He likes big dog.~~
115: 01RAG # 5 Okay, he likes big dog.
116: 52RVB # 4 He likes big dog.
~~117: 01ADC # 6 Now we are ready to read.~~
118: 24ADC # 5 My nose will be bad.
119: 01QAC # 4 Pass the book down.
~~120: 52SAS # 2 Hip, hip..~~
121: 24QAG # 2 Mrs. Ling.
122: 52QSS # 2 Give book.
~~123: 13QAC # 3 Look at her.~~
124: 13QAGPPRe 1 My-Oanh.
125: 24AIR # 4 I need the water.
~~126: 01QAC # 4 Take the top one.~~
127: 01UNT # 1 Okay.
128: 24AIR # 4 I need the water.
~~129: 01QAC # 5 Just take the top one.~~
130: 01QRQ # 1 Okay?
131: 01QAC # 4 Take the top one.
~~132: 01QAC # 4 Take the top one.~~
133: 24QFS # 3 I am to,
134: 24AIR # 4 I need some water.
~~135: 13QACPPRe 3 Look at Henriette.~~
136: 01QAC # 4 Take the top one.
137: 01QAG # 1 Henrietta.
~~138: 01QRQ # 1 Okay?~~
139: 11AAT # 4 He wants a half :
140: 11AID # 1 Here.
~~141: 52SAS # (Singing.)~~
142: 01PPR # 1 Sh.
143: 01QSU # 5 Let's see who is ready?
~~144: 01ADC #17 Those people who are ready will have the books closed and~~
145: # the markers on top like this.
146: 52AID # 3 On page three.
~~147: 01QSU # 5 Let's see who is ready?~~
148: 01ADC # 3 Carletta is ready.
149: 01ADC # 3 Ah-ngat is ready.
~~150: 01QAG # 1 Henrietta.~~
151: 01QCH # 3 Are you ready?
152: 01QPM # 3 Thank you Ah-ngat.

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153: 01QPH e 9 Thank you for showing me.
154: (Pause.)
155: 01QBH e 1 Okay.
156: 01AEV e 2 Very nice.
157: 01ADC e 3 You are peeking.
158: 01QAC e 8 Turn to page 3, to the table content.
159: 01QSU e 7 Let's check and see if you remember.
160: 01QPR e 8 What is the name of the first story?
161: 01QFL e 1 Uh.
162: 01QSS e 1 My-oanh.
163: 16RPR e 1 Can.
164: 01RAG e 1 No.
165: 01QPR e11 What is the name of the title of the first story?
166: 16RPR e 1 One.
167: 01RAG e 6 No, not one.
168: 01AID e 3 That's not one.
169: 01AID e 3 That's a letter.
170: 16RPR e 1 I.
171: 01QPR e 2 I what?
172: 16RPR e 1 Can.
173: 01RAK e 1 Okay.
174: 01QPR e 4 What page is that : :?
175: (Unclear.)
176: 01QBH e 1 Okay.
177: 01QFS e10 I want you to tell me, what's the, no
178: 01QPR e11 What is the name of the story found on page 30?
179: 01QPR e10 What is the name of the story found on 30?
180: 24RPR e 2 The, can.
181: 01QFL e 1 Uh.
182: 01QAG e 1 Elaine. (Teacher talks to the aide.)
183: 01QSU e 6 Would you tell with the Snoopies?
184: 01QPH e 1 Please.
185: 01ADC e 4 They are getting noisy.
186: 01QSU e 7 They can go back to their seat.
187: 24RPR e 7 The little man and the little man.
188: 01QAC e 2 Come again.
189: 01QPH e 3 I am sorry.
190: 01QFS e 1 The,
191: 24RPR e 7 The, the little man and the, and the big man.
192: 01UNT e : : : : : : : : :
193: 01PPR e 5 That goes to Joseph too. (T talks to the other group.)
194: 01QAG e 2 Joseph, Joseph.
195: 01AIR e 6 I don't want that much noise.
196: 01AEX e 4 I can't hear them.
197: 01APRPPRe22 And if you guys are going to make that much noise,
198: e you go back to your seat and put your heads down.
199: 01APR e You lost, you lose your game previledge.
200: 01QCH e 5 Is that understood?
201: 45RCH e 1 Yes.
202: 01ADC e 5 You better remind your friends.
203: 01QRG e 1 Okay?

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204: 01A1A    e 6    I don't want that much noise.
205: 01AEX    e 3    I can't hear.
206: 01DRQ    e 1    Okay?
207: 01DPH    e 1    Thank you.
208: 01DBM    e 1    Okay.
209: 01QPR    e11    What's the name of the story found on page 30 again.
210: 01DSS    e 1    Hieu Nghi?
211: 24RPR    e 7    The little man and the big man.
212: 01RAG    e 1    Right.
213: 01RAG    e 7    The little man and the big man.
214: 01DPR    e11    And what page is "the little man and the big man?"
215: 99RPR    e 1    30.
216: 01RAG    e 1    30.
217: 01QACQSUe 6     Can you find that for me.
218: 01DSS    e 1    Ah-Ngat?
219: 01QAC    e 4    Put your marker down.
220: 01QAC    e 4    Put your marker under.
221: 01RAG    e 1    Okay.
225: 01A1D    e 2    Right here.
223: 01RAG    e 1    Okay.
224: 01QPR    e 4    It's found on page?
225: 99RPR    e 1    30.
226: 01DACQSUe 5     Let's turn to page 30.
227: 01UNT    e 0    : :
228: 01DPH    e 2    Thank you.
229: 01UNT    e 0    : :
230: 01DAC    e 5    Find the story for me.
231: 52A1D    e 7    The big man and the little man.
232: 01DPR    e 4    Where would you look.
233: 01DSS    e 1    Hieu-Nghi?
234: 01DPR    e 5    What page will you look?
235: 24RPR    e 1    30.
236: 52A1D    e 3    The big man.
237: 01DPR    e 7    Where would you look for that story?
238: 24RPR    e 1    30.
239: 13RPR    e 2    30. 30.
240: 52RAKQEXe 1     Oh.
241: 01PPRAPRe 9     I will only call in those people who raise
242:          e 3    their hands nicely.
243: 01DPS    e 4    I do not hear.
244: 13RAG    e 3    No, not 30.
245: 13A1D    e 2    There there.
246: 01PPR    e 5    I can't see loud voices.
247: 01AEX    e 4    I can only see hands go up.
248: 13UNT    e 0    :
249: 01DBM    e 1    Okay,
250: 01DPR    e 8    What do you see in the page of.....
251: 01DAC    e 5    move over a little bit.
252: 52A1D    e 1    36,
253: 52PPR    e 5    He is on page 37.
254: 52RAK    e 1    Okay,
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255: 01DACOSOe 4   Can you help him
256: 01DPM   e 1   please?
257: 52RCH   e 1   No,
258: 52RCH   e 1   yes.
259: 01DPM   e 2   Thank you, Henrietta.
260: 01DBM   e 1   Okay.
261: 01DFR   e 7   What do you see in the page
262: 01DSS   e 1   Henrietta?
263: 51RPR   e 7   A big man and a little man.
264: 01RAG   e 1   Okay.
265: 01DPR   e 4   What are they doing
266: 01DSS   e 1   Wyman?
267: 51RPR   e 7   A big man and the little man.
268: 11RPR   e 1   Read.
269: 01RAG   e 1   No,
270: 01DPR   e 4   what are they doing?
271: 01DFS   e 2   What are
272: 11RPR   e 1   sitting.
273: 01RAG   e 3   They are sitting.
274: 11RVB   e 3   They are sitting.
275: 11RVB   e 3   They are sitting.
276: 01DBM   e 1   Well,
277: 01DFS   e 4   what do you think,
278: 01DFL   e 1   Ah
279: 01DPR   e 3   where are they?
280: 01DSS   e 1   Hieu-Nghi
281: 01DPR   e 3   where are they?
282: 24RPR   e 3   In the park.
283: 01RAG   e 5   They are in the park,
284: 01DBM   e 1   and,
285: 01DCH   e10   is the park in the city or in the country
286: 01DSS   e 1   Ah-Ngat?
287: 51RCH   e 3   In the city.
288: 12RCH   e 1   Country.
289: 01TRAAEXm 7   Country 住了D農場   [Country is farm.]
290: 51RCH   e 1   City.
291: 01DCC   e 1   Ha?
292: 01DAC   e 3   Raise your hand.
293: 01DSS   e 1   Hieu-Nghi.
294: 24UNT   e 3   In the city.
295: 01DPC   e 4   How do you know?
296: 24RPC   e 7   Because they got the house and tree.
297: 24RPCADCe 4   Looks like a park.
298: 01ADC   e 6   They have houses in the country too.
299: 01DPC   e 6   What kind of houses are they?
300: 01DCH   e 2   Short, tall?
301: 13RPC   e 1   Building.
302: 99RPC   e 1   Building.
303: 01DPC   e 4   What kind of building?
304: 13RPC   e 3   Because too tall.
305: 99RCH   e 1   Tall.
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306: 01RAG    e 4   They are tall buildings
307: 01ADC    e 7   you see tall buildings in the city.
308: 01ORD    e 1   Right.
309: 16AID    e 1   Here,
310: 16ADC    e 3   I see it.
311: 01RAG    e 1   Okay,
312: 01QCH    e 9   you want Elaine to take you to the nurse?
313: 01QCH    e 5   You want to go the (T talks to Carletta)
314: 11QAC    e 2   Mrs Ling,
315: 01QPR    e 1   Ha?
316: 11ADC    e 3   there's got one.
317: 01RAG    e 1   Yeah,
318: 01ADC    e 7   there is one over on the .
319: 11AID    e 3   That's Joseph Lives down there.
320: 01QCH    e10   Are we in the city now or in the country?
321: 16RCH    e 1   Country.
322: 24RCH    e 1   City.
323: 01RAG    e 3   In the city.
324: 01TRA    c 5   [In the city.]
325: 11ADC    e 3   Joseph Lives down there.
326: 01ADC    e 4   Looking at the picture,
327: 01QCH    e10   would you say the big man the little man are sad?
328: 24RCH    e 4   No, they are happy.
329: 11RCH    e 1   Happy.
330: 16UNT    e 1   ....
331: 01QSS    e 1   Hieu-nghi.
332: 24RCH    e 3   They are happy.
333: 01QPC    e 6   Why, why would they be happy?
334: 16RPC    e 4   Because he is talking.
335: 01RAG    e 4   Because he is talking.
336: 01QPR    e 3   Who is talking?
337: 16RPR    e 7   The little man and the big man.
338: 01QPR    e 7   Who is the little man talking to.
339: 51RPR    e 3   The big man.
340: 16RPR    e 2   Big man.
341: 01QCH    e10   Do you think the big man answers him or not?
342: 16RCH    e 2   Answers him.
343: 13RCH    e 2   Answers him.
344: 01QCH    e10   Do you think he will talk to the little man?
345: 13RCH    e 1   No.
346: 01RAGOLDe 1    No?!
347: 99RCH    e 1   Yes.
348: 01RAG    e 3   Yes, he would.
349: 01QFS    e 2   And the
350: 01ADC    e 6   looks like they are having fun,
351: 01QRQ    e 2   Isn't it? Huh?
352: 01QACQSUe 7    Let's find out what they do together.
353: 51RCQ    e 1   Yes.
354: 01QAC    e 4   Turn to page 32.
355: 24ADC    e 4   We didn't read this.
356: 01RAG    e 1   No,
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357: 01ADC    e 3    we read that.
358: 13AID    e 1    33, 33.
359: 01RAG    e 1    32
360: 010BM    e 1    now.
361: 010ACOSUe 6     Let's see who is on 32.
362: 91RVB    e 2    The little.
363: 51RVB    e 4    The big, the little.
364: 010ACPPRe 7     I didn't ask anybody to read it.
365: 010AC    e 5    I only asked you to look.
366: 010AG    e 1    Henrietta
367: 01QPR    e 5    What did Mrs. Ling say?
368: 01QAC    e 4    Look at page 32.
369: 010BM    e 1    Okay.
370: 010ACAIRe 5     I want you to look.
371: 01PPR    e 1    Sh.
372: 01QACAIRe 9     I want you to read to yourself with your eyes.
373: 91RAK    e 1    Okay.
374: 01QACAIRe 7     I don't want to hear any noise.
375: 92PPR    e 1    Sh.
376: 01QAC    e 3    With your eyes.
377: 16RVB    e 5    The little man.  (Children are reading out.)
378: 11RVB    e 1    : : jump.
379: 01QAC    e 4    Read with your eyes.  (Teacher murmurs.)
380: 01QAC    e 6    Use your marker to help you.
381:                   (T tells Wyman to read silently)
382: 16QPR    e 3    What this word?
383: 01AAT    e 2    You remember that word, told you.
384: 16RPR    e 1    likes
385: 01RAG    e 1    Likes.
386: 11RVB    e 1    He.
387: 13RVB    e 3    The little man.
388: 11RVB    e 1    to jump.
389: 16RVB    e 6    He like, he likes to jump.
390: 11QFR    e 2    What's this?
391: 01UNT    e 0    : :
392: 11QFR    e 2    What's this?
393: 01RPR    e 2    That's "so".
394: 13QFR    e 2    What's this?
395: 13QAG    e 2    Mrs. Ling.
396: 13QAG    e 2    Mrs. Ling.
397: 24QFR    e 4    What is this word?
398: 01RPR    e 3    He      is he.]
399: 11ADC    e 3    I read here.
400: 24RVB    e 4    He likes to jump.
401: 01ADC    e 2    page 32.
402: 01QAC    e10    Stop, when you get to the end of page 32.
403: 01QRQ    e 1    Okay.
404: 16QFR    e 3    What's this word?
405: 01QFS    e 1    Let's
406: 01QAC    e 4    Put your marker right here.
407: 01QFS    e 3    Now I want to talk to.
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2:4MARY'S CLASS 18 MINS. ENGLISH READING (FLINTSTONE)
2:5
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408: 01QAC    # 5    Put your marker right there.
409: 01QAC    # 3    Close your book.
410: 01QPC    #10    Who knows why I ast you to close your book?
411: 01QPC    # 1    Why?
412: 24RPC    # 5    Because we are too noisy.
413: 01RAG    # 7    No, it wasn't because you are noisy.
414: 13RPC    # 4    Because listen to teacher
415: 01QPR    # 7    What did Mrs. Ling say at first.
416: 24RPR    # 7    Mrs. Ling said uh, uh look at your book.
417: 24RPR    # 4    Don't move with mouth.
418: 01QPR    # 5    What else did I say?
419: 13RPR    # 4    You look your eyes.
420: 01QPR    # 9    What page did I tell you to look at.
421: 51RPR    # 2    Page 32.
422: 01QCH    # 9    Did I ast you to look at page 33?
423: 99RCH    # 1    No.
424: 01QACAIRe11    I want to stop at the end of page 32 or
425: 01QAC    # 6    stop after finish the last line.
426: 01QRD    # 1    Okay?
427: 01QACQSUe 7    Now, let's open up our book again.
428: 01QBM    # 1    Now,
429: 01ADC    # 4    from what you read.
430: 01QBM    # 1    Okay,
431: 01QPR    # 6    what does the little man do?
432: 99RPR    # 1    jump
433: 01QVBAIRe 8    Who can read the sentence that tells me about.
434: 01QFL    # 1    Ah.
435: 01QSS    # 1    Henrietta.
436: 51RVB    # 4    The little man jumped.
437: 01AEV    # 2    Very good.
438: 01QVB    # 6    What does he like to do.
439: 01QSS    # 1    Ah-Ngat?
440: 01QAC    # 3    Use your marker.
441: 01QVB    # 6    What does he like to do?
442: 01QBM    # 1    Okay.
443: 51RVB    # 5    A little man in the
444: 13RVB    # 5    A little man in the
445: 51UNT    # 2    passing gum.
446: 01QVB    # 8    You have to read me the whole sentence.
447: 13AIR    # 5    I don't know this sentence.
448: 01QCQ    # 1    Ah.
449: 13AIR    # 5    I don't know this sentence.
450: 16QAG    # 2    I know.
451: 01QVBAIDe 1    He.
452: 16RVE    # 2    He likes
453: 13RVB    # 4    He little to down
454: 01RAG    # 2    Not "little"
455: 01QVB    # 3    What's that word
456: 01QSS    # 1    Henrietta?
457: 51RVB    # 2    He likes
458: 51RVB    # 4    He likes to jump.
```

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459: 12RVE   e 4   He likes to jump.
460: 01RAG   e 1   Okay.
461: 010PR   e 5   So what does he do
462: 01088   e 1   My Gosh?
463: 51RPR   e 4   He likes to jump.
464: 01DPR   e 5   So what does he do
465: 01088   e 1   My Gosh?
466: 16RPR   e 4   He likes to jump.
467: 51RPR   e 3   So he jump.
468: 01088   e 4   What does he do?
469: 51RPR   e 3   So he jumps.
470: 16RPR   e 3   So he jumps.
471: 51RPR   e 3   So he jumps.
472: 01RAG   e 3   So he jumps.
473: 51RPR   e 3   So he jumps.
474: 51RPR   e 3   So he jumps.
475: 51RPR   e 3   So he jumps.
476: 010AC05UE 5   Let's get to page 33
477: 51RPR   e 3   So he jumps.
478: 51RPR   e 3   So he jumps.
479: 51RAG   e 1   30
480: 010AC   e 5   This time with your eyes
481: 010AC   e 6   when you get to the last line stop.
482: 11RVE   e 3   The big man.
483: 15DAG   e 1   hey.
484: 16DPR   e 3   What's this word?
485: 01DVE   e 3   You read now.
486: 11RVE   e 7   I can't jump, but I can sit.
487: 11RVE   e 7   I like to sit. So I sit.
488: 5[illegible]R   e 5   What does that I like.
489: 11A10   e 1   This.
490: 11RAG   e 4   no I am not.
491: 51RVE   e 7   I like to jump, but I like.
492: 11A1D   e 3   That's not like.
493: 51UNT   e 1   I : :
494: 11AIE   e 1   can't
495: 51RVE   e 2   I can't
496: 13DCC   e 4   What did he what
497: 51RCL   e 2   I can't
498: 13RCL   e 2   I can't
499: 51RCL   e 1   jump.
500: 16DVE   e 3   What's this word?
501: 13RVE   e 4   I can't jump, but
502: 13UNT   e 0   : : :
503: 51RVE   e 7   I can't jump but I can sit.
504: 13RVE   e 7   I can't jump but I can sit.
505: 51RVE   e 1   I
506: 51DFS   e 1   little
507: 51UNT   e 5   like to sit. So I sit.
508: 13UNT   e 1   I
509: 13UNT   e 1   little
```

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510: 13RVB    e 6   like to sit. So I sit.
511: 51RVB    e 3   So I sit.
512: 01GACFFRe 1    Shhh-
513: 010BM    e 1   Okay.
514: 01DFR    e 6   What does the big man say?
515: 01DFR    e 6   What does the big man say?
516: 51RFR    e 3   So he jumps.
517: 24UNT    e 3   The big man.
518: 24DVB    e 3   What is this?
519: 01PVB    e 1   says.
520: 24FVB    e 3   Says I like to.
521: 51DAG    e 2   I know.
522: 01GAC    e 4   You have to look at the book.
523: 51RVB    e 5   The big man can't jump.
524: 13AIR    e 4   I like to read.
525: 01FRADCe 7     I don't think anybody is paying attention.
526: 01DAEFRe 2     Especially Ah-Ngat.
527: 01DVBOSUe 4    Let's read it again.
528: 01DFR    e 6   What does the big man say?
529: 01DAG    e 1   Everybody
530: 01DAC    e 3   take your marker.
531: 01GAC    e 9   and put it under the 1st line.
532: 01AEX    e 4   So Hieu-Nghi can read.
533: 01GAC    e 3   you follow along.
534: 24DCC    e 3   I read again.
535: 01RCL    e 1   Yes.
536: 24DFS    e 2   The, no
537: 24FVB    e 7   the big man frowns.
538: 01HID    e 1   says.
539: 24FVB    e 3   says I can,
540: 24FVB    e 2   can not.
541: 01HID    e 1   can't
542: 24FVB    e 2   can't jump.
543: 01DFR    e 5   What else does he say?
544: 01CVB    e 1   but
545: 24FVB    e 9   But I can sit. I like to sit.
546: 24FVB    e 3   So I sit.
547: 01RAG    e 1   Okay.
548: 01DSS    e 1   Ah-Ngat.
549: 01GCH    e 4   Can you find it?
550: 01CBM    e 1   Okay.
551: 01CVBOSUe 4    Let's read it together,
552: 01VEYAIRe 9    because I don't think Ah-Ngat can find the line.
553: 01DFC    e 1   Okay?
554: 01CVBOSUe 5    Can we read it together?
555: 01CCW    e 1   Ready?
556: 99RVB    e11   The big man says I can't jump. But I can sit.
557: 99RVB    e 7   I like to sit. So I sit.
558: 01HEY    e 4   That was much better.
559: 01DFS    e 2   Now the,
560: 01ADC    e 3   everybody followed along.
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```
561: 01ORO    e 1   Right?
562: 01AEX    e 6   look how much easy it is.
563: 01OBM    e 1   Okay.
564: 01UNT    e 0   ! ! ! !
565: 01DAC    e 4   Turn to page 34.
566: 13OCO    e 1   35.
567: 24OEX    e 1   Boy.
568: 24ADC    e 1   Finish.
569: 51RAG    e 1   34.
570: 01ADC    e 7   The little man did something else besides jpeuce.
571: 01ADC    e 1   Jumping.
572: 01AID    e 1   34
573: 01DAC    e 5   Read with your eyes again.
574: 91OBM    e 1   Okay.
575: 01DAC    e 9   When you get to the last line you stop.
576: 01UNT    e 0   (Cc all read with sound).
577: 01FFFDACe 4    With your eyes, eyes. (To all Cs).
578: 51RAGDACe 4    Read with your e.es.
579: 01CACFFKe 1    Shhh.
580: 11RVE    e 4   The little man run
581: 13RVE    e 4   The little man run.
582: 13OOF    e 7   What is this?
583: 01OVBAIDe 1    He
584: 11RVE    e 4   He like to run.
585: 13RVE    e 4   He like to run.
586: 01DCH    e 6   Are you reading with your eyes?
587: 01RAGAIRe 4    I don't think so.
588: 01OPS    e 2   You male.
589: 01ADC    e 4   Your mouth is moving.
590: 01AEV    e 2   Very nice.
591: 01AID    e 1   Henrietta.
592: 11UNT    e 0   ! !
593: 01OFS    e 4   You see how Henrietta read.
594: 01DAC    e 1   Everybody
595: 01DAC    e 4   watches how Henrietta reads.
596: 01NVE    e 0   (Henrietta reads silently).
597: 01DAC    e 1   Ah-hah.
598: 01DAC    e 1   Watch.
599: 01DCH    e 5   Does she male an. noise?
600: 01FOV    e 1   No very quietly.
601: 11RVE    e 7   The little man
602: 01DAC    e 1   Ah-hah.
603: 01DAC    e 1   watch
604: 01OFS    e 2   does he,
605: 01DCH    e 5   does she male any noise?
606: 11FOV    e 1   No.
607: 01ADC    e 5   She moves with her eyes.
608: 01DACOSJe 5    Can you do the same?
609: NVE      e 0   (A-hah nods head).
610: 01OBM    e 1   Okay.
611: 01OPR    e 6   What does the little man do?
```

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```
612: 01C0S5    e 1    My Gawd.
613: 16RPR     e 4    The little man run
614: 01RAG     e 1    Okay.
615: 16RDL     e 2    He likes
616: 01FFRDACe 1      Stop.
617: 01DAC     e 1    stop.
618: 01AE>ADCe1G      I just asked you what does the little man do?
619: 01ADC     e 4    "The little man runs."
620: 01DPM     e 1    Now.
621: 01C0F     e 6    What does he like to do?
622: 01DFL     e 1    Uh.
623: 01DSS     e 1    Ah-Ngat.
624: 01C0F     e 6    What does he like to do?
625: 01D'RADCm 9      我問你 [I asked you.] "What does he like to do?"
626: 16RPF     e 4    He like to run.
627: 10A1DSJe  e      Can you find the sentence and tell me.
628: 01DCH     e E    Does this tell me he likes to run"
629: 01ADC     e 7    This say that the little man runs.
630: 01DFC     e 1    Right?
631: 01DCH     e1C    Does this sentence tell me what he likes to do?
632: 12RVE     e 2    He little.
633: 11PAC     e 2    Not little.
634: 12RVE     e 1    says.
635: 01A1I     e 1    likes
636: 12RVE     e 5    likes to run.
637: 01RAE     e 1    Okay.
638: 01R4S     e 7    He likes to run, so he runs
639: 01D5M     e 1    Okay.
640: 01D4C     e 7    We'll stop here.
641: 014E:A1'E e E    Because I want you to go see Miss---
642: 01RPF     e 6    and she is going to work with you
643: 01DFF     e 4    How many people finish
644: 01DFE     e 1    the.
645: 01DPF     e 2    the Lincoln.
646: 16RPF     e 1    Me.
647: 16RAC     e 2    Not me.
648: 16RAC     e 2    Not me.
649: 12A1F     e 3    I don't know.
650: 01AFRADCe 7      You are going to write something about.
651: 11FFF     e 3    I didn't.
652: 01DE>     e 1    Oh.
653: 01ADC     e 3    you were absent.
654: 01D4C     e 5    Close your book.
655: 51FFF     e 2    I didn't.
656: 01D4C     e 5    Put your marker on top.
657: --NVE     e 0    (Cs stand up and wait to leave.)
658: 01FPF     e 1    Ah.
659: 01CAC'FFe 3      Don't go yet.
660: 01D4C     e 5    Sit down.
661: 99SAL     e 0    (Cs laugh).
662: 01DAC     e 6    Pass your books to the left.
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```
663.717 1
663: 01DAC    e 2    Pass your markers to the right.
664: 240FM    e 3    May I have
665: 99NVB    e 0    (Cs pass books and markers.)
666: 01DAC    e 2    Pass your markers to the right.
667: 240AC    e 1    Here
668: 240AG    e 1    Wyman.
669: 240FM    e 5    May I have the book
670: 240FM    e 1    please?
671: 01DAC    e 3    Pass the marker
672: 01DAC    e 3    Don't push it.
673: 01FFFDACe 5     Give it to him nicely.
674: 240AG    e 1    Wyman.
675: 240AC    e 4    Give it to me.
676: 014DC    e 3    They are coming.
677: 240FM    e 5    May I have Carletta's book?
678: 240FM    e 5    May I have Carletta's book?
679:          e 0    (T talks to Elaine for a few second.)
```

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# APPENDIX C:

# SAMPLE C-ACT FREQUENCIES AND PROPORTIONS

# Teacher A: Frequencies and Proportions

| | ALL PROPORTIONS | | TEACH 01 | | MED & HIGH | | | ROAD-2 FLINT-4 | | | | LOW 6??? | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SNOOP-1 | TOT.FRQ: | 1152.00 | TOTFRQ: | 870.00 | TOTFRQ: | 282.00 | | TOTFRQ: | 596.00 | TOTFRQ: | 1354.00 | 195? | ( | | |
| TIME: | 38.00 | 0.63 | 47.00 | 0.78 | 85.00 | 1.42 | | 28.00 | 0.47 | 72.00 | 1.20 | | 100.00 | 1.67 | |
| CODE | FRQ | SPKPRN | FRQ | SPKPRN | FRQ | SPKPRN | | FRQ | SPKPRN | FRQ | SPKPRN | | FRQ | SPKPRN | |
| AAT | 10.00 | 0.01 | 1.00 | 0.00 | 11.00 | 0.01 | | 2.00 | 0.00 | 3.00 | 0.00 | | 5.00 | 0.00 | |
| ADC | 135.00 | 0.12 | 122.00 | 0.14 | 262.00 | 0.23 | | 41.00 | 0.07 | 135.00 | 0.10 | | 176.00 | 0.09 | |
| AEV | 14.00 | 0.01 | 8.00 | 0.01 | 24.00 | 0.01 | | 7.00 | 0.01 | 36.00 | 0.02 | | 43.00 | 0.02 | |
| AEJ | 27.00 | 0.02 | 39.00 | 0.04 | 66.00 | 0.06 | | 12.00 | 0.02 | 45.00 | 0.02 | | 57.00 | 0.02 | |
| AIE | 47.00 | 0.04 | 4.00 | 0.00 | 51.00 | 0.03 | | 10.00 | 0.02 | 43.00 | 0.02 | | 53.00 | 0.02 | |
| AIF | 14.00 | 0.01 | 6.00 | 0.01 | 20.00 | 0.01 | | 0.00 | 0.00 | 7.00 | 0.01 | | 7.00 | 0.00 | |
| APP | 10.00 | 0.01 | 6.00 | 0.01 | 16.00 | 0.01 | | 4.00 | 0.01 | 12.00 | 0.01 | | 16.00 | 0.01 | |
| AP_ | 0.00 | 0.00 | 3.00 | 0.00 | 3.00 | 0.00 | | 0.00 | 0.00 | 6.00 | 0.00 | | 6.00 | 0.00 | |
| | 263.00 | 0.23 | 190.00 | 0.22 | 453.00 | 0.39 | | 76.00 | 0.13 | 287.00 | 0.21 | 239.17 | 367.00 | 0.19 | |
| DAC | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | | | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | |
| DAE | 5.00 | 0.00 | 17.00 | 0.02 | 22.00 | 0.01 | | 12.00 | 0.02 | 34.00 | 0.02 | | 46.00 | 0.02 | |
| DBP | 111.00 | 0.10 | 60.00 | 0.07 | 171.00 | 0.08 | | 35.00 | 0.06 | 119.00 | 0.09 | | 154.00 | 0.08 | |
| DDC | 22.00 | 0.02 | 11.00 | 0.01 | 33.00 | 0.02 | | 11.00 | 0.02 | 19.00 | 0.01 | | 30.00 | 0.02 | |
| DEI | 8.00 | 0.01 | 4.00 | 0.00 | 12.00 | 0.01 | | 7.00 | 0.01 | 18.00 | 0.01 | | 25.00 | 0.01 | |
| DFL | 67.00 | 0.06 | 11.00 | 0.01 | 78.00 | 0.04 | | 12.00 | 0.02 | 30.00 | 0.02 | | 42.00 | 0.02 | |
| DFS | 39.00 | 0.03 | 29.00 | 0.03 | 68.00 | 0.03 | | 24.00 | 0.04 | 40.00 | 0.03 | | 64.00 | 0.03 | |
| DFP | 4.00 | 0.00 | 11.00 | 0.01 | 15.00 | 0.01 | | 1.00 | 0.00 | 12.00 | 0.01 | | 13.00 | 0.01 | |
| DFC | 31.00 | 0.03 | 11.00 | 0.01 | 42.00 | 0.02 | | 5.00 | 0.01 | 29.00 | 0.02 | | 34.00 | 0.02 | |
| DSE | 85.00 | 0.07 | 33.00 | 0.04 | 144.00 | 0.07 | | 46.00 | 0.08 | 77.00 | 0.06 | | 123.00 | 0.06 | |
| DVF | 0.00 | 0.0 | 0.00 | 0.00 | 0.00 | 0.0 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| | 377.00 | 0.33 | 208.00 | 0.24 | 585.00 | 0.29 | | 155.00 | 0.26 | 329.00 | 0.24 | 312.83 | 534.00 | 0.27 | |
| PET | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| PCL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | |
| PJC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| PPE | 12.00 | 0.01 | 11.00 | 0.01 | 23.00 | 0.01 | | 7.00 | 0.01 | 44.00 | 0.03 | | 51.00 | 0.02 | |
| PTE | 1.00 | 0.0 | 0.00 | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | |
| PWE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| | 13.00 | 0.01 | 11.00 | 0.01 | 24.00 | 0.01 | | 9.00 | 0.02 | 44.00 | 0.03 | 36.67 | 80.00 | 0.02 | |
| QAC | 83.00 | 0.07 | 61.00 | 0.07 | 144.00 | 0.07 | | 57.00 | 0.10 | 156.00 | 0.12 | | 213.00 | 0.11 | |
| QCP | 58.00 | 0.05 | 105.00 | 0.12 | 163.00 | 0.08 | | 45.00 | 0.08 | 84.00 | 0.06 | | 130.00 | 0.07 | |
| QMC | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 6.00 | 0.00 | | 6.00 | 0.00 | |
| QPC | 65.00 | 0.06 | 24.00 | 0.03 | 89.00 | 0.04 | | 32.00 | 0.05 | 26.00 | 0.02 | | 58.00 | 0.03 | |
| QSP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | |
| QFF | 89.00 | 0.08 | 102.00 | 0.12 | 191.00 | 0.09 | | 82.00 | 0.13 | 173.00 | 0.13 | | 255.00 | 0.13 | |
| QSC | 25.00 | 0.02 | 25.00 | 0.03 | 51.00 | 0.02 | | 11.00 | 0.02 | 20.00 | 0.01 | | 31.00 | 0.02 | |
| QVE | 37.00 | 0.03 | 34.00 | 0.04 | 71.00 | 0.04 | | 22.00 | 0.04 | 61.00 | 0.05 | | 83.00 | 0.04 | |
| | 342.00 | 0.30 | 358.00 | 0.40 | 693.00 | 0.34 | | 260.00 | 0.44 | 487.00 | 0.36 | 405.83 | 747.00 | 0.38 | |
| RAE | 112.00 | 0.10 | 79.00 | 0.09 | 191.00 | 0.09 | | 70.00 | 0.12 | 120.00 | 0.09 | | 190.00 | 0.10 | |
| RAI | 28.00 | 0.02 | 12.00 | 0.01 | 40.00 | 0.02 | | 17.00 | 0.02 | 21.00 | 0.02 | | 38.00 | 0.02 | |
| RCH | 5.00 | 0.00 | 7.00 | 0.01 | 12.00 | 0.01 | | 0.00 | 0.00 | 3.00 | 0.00 | | 3.00 | 0.00 | |
| RCL | 0.00 | 0.00 | 3.00 | 0.00 | 3.00 | 0.00 | | 4.00 | 0.01 | 1.00 | 0.00 | | 5.00 | 0.00 | |
| RCC | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | | 2.00 | 0.00 | 4.00 | 0.00 | | 6.00 | 0.00 | |
| RFC | 1.00 | 0.00 | 2.00 | 0.00 | 3.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| RPP | 2.00 | 0.00 | 6.00 | 0.01 | 8.00 | 0.00 | | 2.00 | 0.00 | 3.00 | 0.00 | | 5.00 | 0.00 | |
| RSL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| RVE | 7.00 | 0.01 | 1.00 | 0.00 | 8.00 | 0.00 | | 1.00 | 0.00 | 5.00 | 0.00 | | 6.00 | 0.00 | |
| | 156.00 | 0.14 | 110.00 | 0.13 | 266.00 | 0.13 | | 96.00 | 0.16 | 157.00 | 0.12 | 130.83 | 253.00 | 0.13 | |
| SAC | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| SAL | 1.00 | 0.00 | 1.00 | 0.00 | 2.00 | 0.00 | | 0.00 | 0.00 | 3.00 | 0.00 | | 3.00 | 0.00 | |
| SAE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | 2.00 | 0.00 | | 2.00 | 0.00 | |
| SIK | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | |
| WVE | 0.00 | 0.00 | 3.00 | 0.00 | 3.00 | 0.00 | | | 0.00 | 2.00 | 0.00 | | 2.00 | 0.00 | |
| TRA | 1.00 | 0.00 | 2.00 | 0.00 | 3.00 | 0.00 | | 4.00 | 0.01 | 4.00 | 0.00 | | 8.00 | 0.00 | |
| UNT | 19.00 | 0.02 | 14.00 | 0.02 | 33.00 | 0.02 | | 15.00 | 0.02 | 51.00 | 0.04 | | 66.00 | 0.03 | |
| | 21.00 | 0.02 | 21.00 | 0.02 | 42.00 | 0.02 | | 19.00 | 0.03 | 42.00 | 0.04 | 31.67 | 81.00 | 0.04 | |
| TOTAL | 1173.00 | | 891.00 | | 2064.00 | 1.02 | | 615.00 | | 1416.00 | | | 2031.00 | 1.04 | |

Microfilmed From
Available Copy

# Teacher B: Frequencies and Proportions

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ORAL LO | TOTFRQ: | 1376.00 | | | TOTFRQ: | 729.00 | | | TOTFRQ: | | |
| | | | | | TIME: | 50.00 | 0.82 | | TIME: | 32.00 | 0.53 | | TIME: | 22.00 | 1.00 |
| | | | | | | FRQ | SPKFRA | | | FRQ | SPKFRA | | | FRQ | SPKFRA |
| | | | | | | | | | | | | | | | |
| AAT | 12.00 | 0.00 | | | | 6.00 | 0.00 | | | 2.00 | 0.00 | | | 9.00 | 0.00 |
| ADC | 279.00 | 0.09 | | | | 147.00 | 0.11 | | | 56.00 | 0.08 | | | 387.00 | 0.18 |
| AEV | 55.00 | 0.02 | | | | 22.00 | 0.02 | | | 21.00 | 0.03 | | | 24.00 | 0.02 |
| AEY | 56.00 | 0.02 | | | | 42.00 | 0.03 | | | 25.00 | 0.03 | | | 31.00 | 0.02 |
| AII | 96.00 | 0.04 | | | | 20.00 | 0.01 | | | 27.00 | 0.04 | | | 69.00 | 0.04 |
| AIR | 37.00 | 0.01 | | | | 16.00 | 0.01 | | | 5.00 | 0.01 | | | 32.00 | 0.02 |
| APP | 13.00 | 0.01 | | | | 26.00 | 0.02 | | | 4.00 | 0.01 | | | 9.00 | 0.00 |
| ARU | 3.00 | 0.00 | | | | 1.00 | 0.00 | | | 3.00 | 0.00 | | | 0.00 | 0.00 |
| | 511.00 | 0.20 | 292.00 | | | 285.00 | 0.20 | 238.47 | | 144.00 | 0.15 | 270.00 | | 367.00 | 0.20 |
| CAC | 4.00 | 0.00 | | | | 3.00 | 0.00 | | | 2.00 | 0.00 | | | 2.00 | 0.00 |
| CBE | 51.00 | 0.02 | | | | 79.00 | 0.06 | | | 17.00 | 0.02 | | | 25.00 | 0.01 |
| CBP | 174.00 | 0.07 | | | | 122.00 | 0.10 | | | 64.00 | 0.09 | | | 110.00 | 0.06 |
| CCC | 65.00 | 0.03 | | | | 21.00 | 0.02 | | | 16.00 | 0.02 | | | 49.00 | 0.03 |
| DES | 53.00 | 0.02 | | | | 11.00 | 0.01 | | | 13.00 | 0.02 | | | 49.00 | 0.03 |
| DFL | 20.00 | 0.01 | | | | 17.00 | 0.01 | | | 7.00 | 0.01 | | | 13.00 | 0.01 |
| DFS | 91.00 | 0.04 | | | | 54.00 | 0.04 | | | 18.00 | 0.02 | | | 75.00 | 0.04 |
| DFP | 18.00 | 0.01 | | | | 16.00 | 0.01 | | | 5.00 | 0.01 | | | 13.00 | 0.01 |
| DFS | 5.00 | 0.00 | | | | 12.00 | 0.01 | | | 3.00 | 0.00 | | | 2.00 | 0.00 |
| DSS | 177.00 | 0.07 | | | | 25.00 | 0.02 | | | 36.00 | 0.05 | | | 141.00 | 0.08 |
| DVT | 7.00 | 0.00 | | | | 3.00 | 0.00 | | | | 0.00 | | | 7.00 | 0.00 |
| | 665.00 | 0.26 | 280.00 | | | 368.00 | 0.27 | 441.60 | | 175.00 | 0.24 | 328.13 | | 490.00 | 0.26 |
| FBT | 3.00 | 0.00 | | | | 2.00 | 0.00 | | | 2.00 | 0.00 | | | 1.00 | 0.00 |
| FCL | 0.00 | 0.00 | | | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 |
| FJD | 9.00 | 0.00 | | | | | 0.00 | | | | 0.00 | | | 9.00 | 0.00 |
| FFS | 141.00 | 0.05 | | | | 97.00 | 0.07 | | | 45.00 | 0.07 | | | 92.00 | 0.05 |
| FTE | 3.00 | 0.00 | | | | 1.00 | 0.00 | | | | 0.00 | | | 3.00 | 0.00 |
| FWS | | 0.00 | | | | 0.00 | 0.00 | | | | 0.00 | | | 0.00 | 0.00 |
| | 151.00 | 0.06 | 85.14 | | | 100.00 | 0.07 | 120.00 | | 53.00 | 0.07 | 95.63 | | 102.00 | 0.05 |
| GAC | 225.00 | 0.09 | | | | 174.00 | 0.13 | | | 75.00 | 0.10 | | | 180.00 | 0.09 |
| GCH | 101.00 | 0.04 | | | | 89.00 | 0.06 | | | 27.00 | 0.04 | | | 74.00 | 0.04 |
| GMS | 4.00 | 0.00 | | | | 9.00 | 0.01 | | | 1.00 | 0.00 | | | 3.00 | 0.00 |
| GPC | 52.00 | 0.02 | | | | 24.00 | 0.02 | | | 24.00 | 0.03 | | | 28.00 | 0.02 |
| GPW | | 0.00 | | | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 |
| GFF | 357.00 | 0.14 | | | | 172.00 | 0.13 | | | 102.00 | 0.14 | | | 272.00 | 0.14 |
| GSU | 11.00 | 0.00 | | | | 14.00 | 0.01 | | | 4.00 | 0.01 | | | 7.00 | 0.00 |
| GVE | 26.00 | 0.01 | | | | 12.00 | 0.01 | | | 5.00 | 0.01 | | | 21.00 | 0.01 |
| | 781.00 | 0.30 | 445.14 | | | 495.00 | 0.37 | 548.00 | | 238.00 | 0.33 | 441.25 | | 585.00 | 0.30 |
| HAE | 254.00 | 0.10 | | | | 69.00 | 0.05 | | | 69.00 | 0.09 | | | 222.00 | 0.12 |
| HED | 171.00 | 0.07 | | | | 90.00 | 0.07 | | | 53.00 | 0.07 | | | 78.00 | 0.04 |
| HIH | 3.00 | 0.00 | | | | 3.00 | 0.00 | | | 1.00 | 0.00 | | | 3.00 | 0.00 |
| HOL | 1.00 | 0.00 | | | | 3.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 |
| HSC | 8.00 | 0.00 | | | | 9.00 | 0.00 | | | | 0.00 | | | 6.00 | 0.00 |
| HTC | 18.00 | 0.01 | | | | 1.00 | 0.00 | | | | 0.00 | | | 25.00 | 0.01 |
| HTS | 23.00 | 0.01 | | | | 1.00 | 0.00 | | | 4.00 | 0.01 | | | 16.00 | 0.01 |
| HUL | 1.00 | 0.00 | | | | 1.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 |
| HVE | | 0.00 | | | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 |
| | 479.00 | 0.18 | 272.00 | | | 171.00 | 0.12 | 205.20 | | 131.00 | 0.18 | 245.63 | | 349.00 | 0.19 |
| SAC | 7.00 | 0.00 | | | | | 0.00 | | | | 0.00 | | | 7.00 | 0.00 |
| SAL | | 0.00 | | | | 1.00 | 0.00 | | | | 0.00 | | | | 0.00 |
| SAB | | 0.00 | | | | | 0.00 | | | | 0.00 | | | | 0.00 |
| SIU | | 0.00 | | | | | 0.00 | | | | 0.00 | | | | 0.00 |
| SWE | | 0.00 | | | | | 0.00 | | | | 0.00 | | | | 0.00 |
| TAS | | 0.00 | | | | | 0.00 | | | | 0.00 | | | | 0.00 |
| UNT | 42.00 | 0.02 | | | | 23.00 | 0.02 | | | 11.00 | 0.01 | | | 31.00 | 0.02 |
| | 49.00 | 0.02 | 28.00 | | | 24.00 | 0.02 | 28.80 | | 11.00 | 0.01 | 20.63 | | 38.00 | 0.02 |
| TOTAL | 2643.00 | | | | | 1400.00 | | | | 750.00 | | | | 1893.00 | |

Microfilmed From
Best Available Copy

# Low Group: Frequencies and Proportions

"LOWALL" ALL PROPORTIONS
ORAL TOT.FRQ: 915.00
TIME: 51.00 0.05

GROUP: LOW
READING TOTFRQ: 611.00
TIME: 100.00 1.67

CHINESE TOTFRQ: 87.00
TIME: 52.00 0.87

SEATWORK TOTFRQ: 355.00
TIME: 54.00 0.90

| CODE | FRQ | SPKPRN | | FRQ | SPKPRN | | | FRQ | SPKPRN | | | FRQ | SPKPRN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AAT | 3.00 | 0.00 | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 1.00 | 0.00 | |
| ADC | 133.00 | 0.15 | | 36.00 | 0.06 | | | 23.00 | 0.26 | | | 109.00 | 0.31 | |
| AEV | 5.00 | 0.01 | | 0.00 | 0.00 | | | 1.00 | 0.01 | | | 6.00 | 0.02 | |
| AEI | 2.00 | 0.00 | | 6.00 | 0.01 | | | | 0.00 | | | 8.00 | 0.02 | |
| AID | 42.00 | 0.05 | | 28.00 | 0.05 | | | 2.00 | 0.02 | | | 66.00 | 0.19 | |
| AIR | 57.00 | 0.06 | | 38.00 | 0.06 | | | 3.00 | 0.03 | | | 13.00 | 0.04 | |
| APR | 3.00 | 0.00 | | 1.00 | 0.00 | | | | 0.00 | | | 2.00 | 0.01 | |
| ARU | | 0.00 | | 0.00 | 0.00 | | | | 0.00 | | | 1.00 | 0.00 | |
| | 245.00 | 0.27 | 286.24 | 110.00 | 0.18 | 66.00 | | 29.00 | 0.33 | 33.46 | | 206.00 | 0.58 | 228.89 |
| BAC | | 0.00 | | 0.00 | 0.00 | | | | 0.00 | | | 1.00 | 0.00 | |
| BAE | 24.00 | 0.03 | | 30.00 | 0.05 | | | 3.00 | 0.03 | | | 5.00 | 0.01 | |
| BBM | 1.00 | 0.00 | | 1.00 | 0.00 | | | 1.00 | 0.01 | | | 1.00 | 0.00 | |
| BCB | 21.00 | 0.02 | | 9.00 | 0.01 | | | 2.00 | 0.02 | | | 12.00 | 0.03 | |
| BEI | 28.00 | 0.03 | | 9.00 | 0.01 | | | 2.00 | 0.02 | | | 12.00 | 0.03 | |
| BFL | 41.00 | 0.04 | | 28.00 | 0.05 | | | | 0.00 | | | 5.00 | 0.01 | |
| BFS | 30.00 | 0.03 | | 24.00 | 0.04 | | | 2.00 | 0.02 | | | 9.00 | 0.02 | |
| BPM | | 0.00 | | | 0.00 | | | 1.00 | 0.01 | | | 6.00 | 0.02 | |
| BRG | 2.00 | 0.00 | | 1.00 | 0.00 | | | | 0.00 | | | 3.00 | 0.01 | |
| BSE | | 0.00 | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| BVP | 84.00 | 0.09 | | 8.00 | 0.01 | | | | 0.00 | | | 3.00 | 0.01 | |
| | 231.00 | 0.25 | 271.76 | 110.00 | 0.18 | 66.00 | | 11.00 | 0.13 | 12.69 | | 57.00 | 0.16 | 63.33 |
| PBT | | 0.00 | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| PCL | | 0.00 | | | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| PJD | 11.00 | 0.01 | | 4.00 | 0.01 | | | | 0.00 | | | 0.00 | 0.00 | |
| PPR | 5.00 | 0.01 | | 3.00 | 0.00 | | | 1.00 | 0.01 | | | 1.00 | 0.00 | |
| PTE | 7.00 | 0.01 | | 3.00 | 0.00 | | | | 0.00 | | | 3.00 | 0.01 | |
| PWA | | 0.00 | | 0.00 | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| | 23.00 | 0.03 | 27.06 | 10.00 | 0.02 | 6.00 | | 1.00 | 0.01 | 1.15 | | 4.00 | 0.01 | 4.44 |
| GAC | 24.00 | 0.03 | | 6.00 | 0.01 | | | 1.00 | 0.01 | | | 21.00 | 0.06 | |
| GCH | 11.00 | 0.01 | | 2.00 | 0.00 | | | 1.00 | 0.01 | | | 7.00 | 0.02 | |
| GMA | | 0.00 | | | 0.00 | | | | 0.00 | | | 1.00 | 0.00 | |
| GPC | | 0.00 | | 1.00 | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| GPH | 4.00 | 0.00 | | 1.00 | 0.00 | | | 1.00 | 0.01 | | | 0.00 | 0.00 | |
| GPR | 6.00 | 0.01 | | 13.00 | 0.02 | | | 4.00 | 0.05 | | | 12.00 | 0.03 | |
| GSU | 4.00 | 0.00 | | 0.00 | 0.00 | | | | 0.00 | | | 9.00 | 0.03 | |
| GVB | | 0.00 | | 3.00 | 0.00 | | | | 0.00 | | | 0.00 | 0.00 | |
| | 49.00 | 0.05 | 57.65 | 26.00 | 0.04 | 15.60 | | 7.00 | 0.08 | 8.08 | | 30.00 | 0.14 | 33.33 |
| RAB | 38.00 | 0.04 | | 23.00 | 0.04 | | | 4.00 | 0.05 | | | 24.00 | 0.07 | |
| RAK | 3.00 | 0.00 | | 1.00 | 0.00 | | | 3.00 | 0.03 | | | 1.00 | 0.00 | |
| RCH | 55.00 | 0.06 | | 35.00 | 0.06 | | | 2.00 | 0.02 | | | 5.00 | 0.01 | |
| RCL | 4.00 | 0.00 | | 1.00 | 0.00 | | | 1.00 | 0.01 | | | 0.00 | 0.00 | |
| RCD | 2.00 | 0.00 | | 2.00 | 0.00 | | | | 0.00 | | | 1.00 | 0.00 | |
| RPC | 9.00 | 0.01 | | 8.00 | 0.01 | | | 7.00 | 0.08 | | | 1.00 | 0.00 | |
| RPR | 237.00 | 0.26 | | 115.00 | 0.19 | | | 16.00 | 0.18 | | | 5.00 | 0.01 | |
| RRL | 10.00 | 0.01 | | 8.00 | 0.01 | | | | 0.00 | | | 1.00 | 0.00 | |
| RVB | 9.00 | 0.01 | | 162.00 | 0.27 | | | 6.00 | 0.07 | | | 0.00 | 0.00 | |
| | 367.00 | 0.40 | 431.76 | 355.00 | 0.58 | 213.00 | | 39.00 | 0.45 | 45.00 | | 38.00 | 0.11 | 42.22 |
| SAC | 40.00 | 0.04 | | | 0.00 | | | 5.00 | 0.05 | | | 35.00 | 0.07 | |
| SAL | 32.00 | 0.03 | | 15.00 | 0.02 | | | 2.00 | 0.02 | | | 1.00 | 0.00 | |
| SAS | 3.00 | 0.00 | | 4.00 | 0.01 | | | 1.00 | 0.01 | | | 3.00 | 0.01 | |
| RIK | 1.00 | 0.00 | | 3.00 | 0.00 | | | | 0.00 | | | | 0.00 | |
| RVB | | 0.00 | | | 0.00 | | | | 0.00 | | | | 0.00 | |
| TRA | | 0.00 | | | 0.00 | | | | 0.00 | | | | 0.00 | |
| UNT | 143.00 | 0.13 | | 96.00 | 0.13 | | | 8.00 | 0.08 | | | 77.00 | 0.16 | |
| | 219.00 | 0.19 | 257.65 | 118.00 | 0.16 | 70.80 | | 16.00 | 0.16 | 18.46 | | 116.00 | 0.25 | 126.89 |
| TOTAL | 1134.00 | | | 729.00 | | | | 103.00 | | | | 471.00 | | |



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Best Available Copy

# Middle Group: Frequencies and Proportions



| "MEDALL" ALL PROPORTIONS | | | | GROUP: MED | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ORAL TOT.FRQ: 1070.00 | | | | READING TOTFRQ: 452.00 | | | | CHINESE TOTFRQ: 101.00 | | | | SEATWORK TOTFRQ: 356.00 | | | |
| TIME: 105.00 | 1.75 | | | TIME: 100.00 | 1.67 | | | TIME: 37.00 | 0.62 | | | TIME: 75.00 | 1.25 | | |
| CODE | FRQ | SPKPRN | | | FRQ | SPKPRN | | | FRQ | SPKPRN | | | FRQ | SPKPRN | |
| AAT | 2.00 | 0.00 | | | 6.00 | 0.01 | | | 0.00 | 0.00 | | | 5.00 | 0.01 | |
| ADC | 147.00 | 0.14 | | | 80.00 | 0.18 | | | 29.00 | 0.29 | | | 83.00 | 0.23 | |
| AEV | 5.00 | 0.00 | | | 1.00 | 0.00 | | | 2.00 | 0.02 | | | 5.00 | 0.01 | |
| AEI | 4.00 | 0.00 | | | 9.00 | 0.02 | | | 0.00 | 0.00 | | | 6.00 | 0.02 | |
| AID | 73.00 | 0.07 | | | 18.00 | 0.04 | | | 5.00 | 0.05 | | | 28.00 | 0.08 | |
| AIR | 49.00 | 0.05 | | | 18.00 | 0.04 | | | 8.00 | 0.08 | | | 17.00 | 0.05 | |
| APR | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 5.00 | 0.01 | |
| ARU | 0.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| | 281.00 | 0.26 | 160.37 | | 133.00 | 0.29 | 79.80 | | 44.00 | 0.44 | 71.35 | | 149.00 | 0.42 | 119.20 |
| DAC | 0.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| DAE | 49.00 | 0.05 | | | 22.00 | 0.05 | | | 5.00 | 0.05 | | | 24.00 | 0.07 | |
| DBM | 5.00 | 0.00 | | | 2.00 | 0.00 | | | 0.00 | 0.00 | | | 2.00 | 0.01 | |
| DCG | 17.00 | 0.02 | | | 6.00 | 0.01 | | | 5.00 | 0.05 | | | 7.00 | 0.02 | |
| DEI | 48.00 | 0.04 | | | 8.00 | 0.02 | | | 1.00 | 0.01 | | | 32.00 | 0.09 | |
| DFL | 37.00 | 0.03 | | | 14.00 | 0.03 | | | 3.00 | 0.03 | | | 7.00 | 0.02 | |
| DFS | 20.00 | 0.02 | | | 17.00 | 0.04 | | | 1.00 | 0.01 | | | 2.00 | 0.01 | |
| DPR | 2.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 3.00 | 0.01 | |
| DRD | 1.00 | 0.00 | | | 3.00 | 0.01 | | | 0.00 | 0.00 | | | 1.00 | 0.00 | |
| DSS | 1.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| DVP | 62.00 | 0.06 | | | 9.00 | 0.02 | | | 2.00 | 0.02 | | | 35.00 | 0.10 | |
| | 242.00 | 0.23 | 138.29 | | 84.00 | 0.19 | 50.40 | | 17.00 | 0.17 | 27.37 | | 113.00 | 0.32 | 90.40 |
| PBT | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| PCL | 0.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 2.00 | 0.01 | |
| PJC | 6.00 | 0.01 | | | 2.00 | 0.00 | | | 0.00 | 0.00 | | | 1.00 | 0.00 | |
| PPP | 9.00 | 0.01 | | | 1.00 | 0.00 | | | 1.00 | 0.01 | | | 2.00 | 0.01 | |
| PTE | 7.00 | 0.01 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 2.00 | 0.01 | |
| PWA | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| | 23.00 | 0.02 | 13.14 | | 4.00 | 0.01 | 2.40 | | 1.00 | 0.01 | 1.42 | | 5.00 | 0.02 | 5.60 |
| BAC | 10.00 | 0.01 | | | 7.00 | 0.02 | | | 0.00 | 0.00 | | | 23.00 | 0.06 | |
| BCH | 7.00 | 0.01 | | | 8.00 | 0.02 | | | 2.00 | 0.02 | | | 11.00 | 0.03 | |
| BMA | 0.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| BPC | 0.00 | 0.00 | | | 5.00 | 0.01 | | | 0.00 | 0.00 | | | 3.00 | 0.01 | |
| BPF | 5.00 | 0.00 | | | 8.00 | 0.02 | | | 0.00 | 0.00 | | | 4.00 | 0.01 | |
| BPR | 19.00 | 0.02 | | | 5.00 | 0.01 | | | 2.00 | 0.02 | | | 15.00 | 0.04 | |
| BSU | 3.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 4.00 | 0.01 | |
| BVP | 0.00 | 0.00 | | | 1.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| | 44.00 | 0.04 | 25.14 | | 35.00 | 0.08 | 21.00 | | 4.00 | 0.04 | 6.89 | | 60.00 | 0.17 | 48.00 |
| RAE | 42.00 | 0.04 | | | 14.00 | 0.03 | | | 3.00 | 0.03 | | | 8.00 | 0.02 | |
| RAI | 3.00 | 0.00 | | | 2.00 | 0.00 | | | 3.00 | 0.03 | | | 9.00 | 0.03 | |
| RCH | 37.00 | 0.03 | | | 42.00 | 0.09 | | | 4.00 | 0.04 | | | 4.00 | 0.01 | |
| RCL | 3.00 | 0.00 | | | 1.00 | 0.00 | | | 2.00 | 0.02 | | | 0.00 | 0.00 | |
| RCO | 2.00 | 0.00 | | | 5.00 | 0.01 | | | 0.00 | 0.00 | | | 3.00 | 0.01 | |
| RPC | 44.00 | 0.04 | | | 11.00 | 0.02 | | | 1.00 | 0.01 | | | 0.00 | 0.00 | |
| RPR | 301.00 | 0.28 | | | 68.00 | 0.15 | | | 13.00 | 0.13 | | | 3.00 | 0.01 | |
| RSL | 28.00 | 0.03 | | | 2.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | |
| RVB | 20.00 | 0.02 | | | 51.00 | 0.11 | | | 9.00 | 0.09 | | | 0.00 | 0.00 | |
| | 480.00 | 0.45 | 274.29 | | 196.00 | 0.43 | 117.60 | | 35.00 | 0.35 | 56.76 | | 27.00 | 0.08 | 21.60 |
| SAC | 2.00 | 0.00 | | | 0.00 | 0.00 | | | 3.00 | 0.03 | | | 11.00 | 0.02 | |
| SAL | 144.00 | 0.09 | | | 11.00 | 0.02 | | | 1.00 | 0.01 | | | 24.00 | 0.05 | |
| SAS | 24.00 | 0.02 | | | 6.00 | 0.01 | | | 2.00 | 0.02 | | | 5.00 | 0.01 | |
| WIK | 0.00 | 0.00 | | | 5.00 | 0.01 | | | 0.00 | 0.00 | | | 4.00 | 0.01 | |
| WVB | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | | 0.00 | |
| TRA | 0.00 | 0.00 | | | 2.00 | 0.00 | | | 0.00 | 0.00 | | | | 0.00 | |
| UNT | 303.00 | 0.20 | | | 28.00 | 0.06 | | | 9.00 | 0.08 | | | 112.00 | 0.22 | |
| | 473.00 | 0.31 | 270.43 | | 52.00 | 0.10 | 31.20 | | 15.00 | 0.13 | 24.32 | | 156.00 | 0.30 | 124.80 |
| TOTAL | 1543.00 | | | | 504.00 | | | | 116.00 | | | | 512.00 | | |



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# High Group: Frequencies and Proportions

| "MIALL" ENGLISH PROPORTIONS | | | GROUP: HIGH | | | CHINESE TOTFRQ: 0.00 | | | SEATWORK TOTFRQ: 118.00 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ORAL TOTFRQ: 413.00 | | | READING TOTFRQ: 104.00 | | | TIME: 100.00 1.67 | | | TIME: 40.00 0.67 | | |
| TIME: 80.00 1.33 | | | TIME: 32.00 0.87 | | | FRQ SPKPRN | | | FRQ SPKPRN | | |
| CODE | FRQ | SPKPRN | FRQ | SPKPRN | | | | | | | |
| AAT | | 0.00 | 0.00 | | | 0.00 | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| ABC | 52.00 | 0.13 | 0.46 | 17.00 | 0.16 | 0.59 | | ERROR | ERROR | 33.00 | 0.28 | 0.77 |
| AEV | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| AEY | 0.00 | 0.00 | 0.00 | 2.00 | 0.02 | 0.07 | | ERROR | ERROR | 1.00 | 0.01 | 0.02 |
| AIE | 45.00 | 0.11 | 0.39 | 7.00 | 0.07 | 0.24 | | ERROR | ERROR | 8.00 | 0.07 | 0.19 |
| AIF | 16.00 | 0.04 | 0.14 | 3.00 | 0.03 | 0.10 | | ERROR | ERROR | 1.00 | 0.01 | 0.02 |
| APS | 1.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| ARL | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| | 114.00 | 0.28 | 84.50 | 29.00 | 0.28 | 33.46 | 0.00 | ERROR | 0.00 | 43.00 | 0.36 | 64.50 |
| DAC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| DAE | 9.00 | 0.02 | 0.14 | 1.00 | 0.01 | 0.06 | | ERROR | ERROR | 13.00 | 0.11 | 0.50 |
| DBP | 1.00 | 0.00 | 0.02 | 2.00 | 0.02 | 0.13 | | ERROR | ERROR | 1.00 | 0.01 | 0.04 |
| DCG | 8.00 | 0.02 | 0.13 | 3.00 | 0.03 | 0.19 | | ERROR | ERROR | 3.00 | 0.03 | 0.12 |
| DEJ | 12.00 | 0.03 | 0.19 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 3.00 | 0.03 | 0.12 |
| DFL | 5.00 | 0.01 | 0.08 | 4.00 | 0.04 | 0.25 | | ERROR | ERROR | 1.00 | 0.01 | 0.04 |
| DFE | 23.00 | 0.06 | 0.37 | 5.00 | 0.05 | 0.31 | | ERROR | ERROR | 2.00 | 0.02 | 0.08 |
| DPP | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 1.00 | 0.01 | 0.04 |
| DRG | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| DSE | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| DVF | 5.00 | 0.01 | 0.08 | 1.00 | 0.01 | 0.06 | | ERROR | ERROR | 2.00 | 0.02 | 0.08 |
| | 62.00 | 0.15 | 47.25 | 16.00 | 0.15 | 16.46 | 0.00 | ERROR | 0.00 | 26.00 | 0.22 | 39.00 |
| FBT | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| FCL | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| FJC | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| FPF | 2.00 | 0.00 | 1.00 | 1.00 | 0.01 | 1.00 | | ERROR | ERROR | 2.00 | 0.02 | 0.67 |
| FTE | | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 1.00 | 0.01 | 0.33 |
| FWS | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| | 2.00 | 0.00 | 1.00 | 1.00 | 0.01 | 1.15 | 0.00 | ERROR | 0.00 | 3.00 | 0.03 | 4.50 |
| GAC | 4.00 | 0.01 | 0.13 | 5.00 | 0.05 | 0.31 | | ERROR | ERROR | 3.00 | 0.03 | 0.12 |
| GCM | 3.00 | 0.01 | 0.10 | 4.00 | 0.04 | 0.25 | | ERROR | ERROR | 7.00 | 0.06 | 0.29 |
| GWS | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| GFC | 4.00 | 0.01 | 0.13 | 1.00 | 0.01 | 0.06 | | ERROR | ERROR | 5.00 | 0.04 | 0.21 |
| GFP | 2.00 | 0.00 | 0.06 | 1.00 | 0.01 | 0.06 | | ERROR | ERROR | 2.00 | 0.02 | 0.08 |
| GFF | 18.00 | 0.04 | 0.58 | 4.00 | 0.04 | 0.25 | | ERROR | ERROR | 6.00 | 0.05 | 0.25 |
| GSH | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | ERROR | ERROR | 1.00 | 0.01 | 0.04 |
| GVE | | 0.00 | 0.00 | 1.00 | 0.01 | 0.06 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| | 31.00 | 0.08 | 22.25 | 16.00 | 0.15 | 18.46 | 0.00 | ERROR | 0.00 | 24.00 | 0.20 | 36.00 |
| HAE | 2.00 | 0.00 | 0.02 | 1.00 | 0.01 | 0.02 | | ERROR | ERROR | 8.00 | 0.07 | 0.30 |
| HAI | 1.00 | 0.00 | 0.00 | 1.00 | 0.01 | 0.02 | | ERROR | ERROR | 2.00 | 0.02 | 0.08 |
| HCM | 16.00 | 0.04 | 0.06 | 5.00 | 0.05 | 0.12 | | ERROR | ERROR | 6.00 | 0.05 | 0.27 |
| HCL | 2.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | | ERROR | EPROF | 0.00 | 0.00 | 0.00 |
| HCE | | 0.00 | 0.00 | 1.00 | 0.01 | 0.02 | | ERROR | ERROR | 2.00 | 0.02 | 0.08 |
| HPC | 3.00 | 0.01 | 0.01 | 6.00 | 0.06 | 0.14 | | ERROR | ERROR | 3.00 | 0.02 | 0.14 |
| HPP | 146.00 | 0.35 | 0.72 | 18.00 | 0.17 | 0.42 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| HQL | 15.00 | 0.04 | 0.07 | 2.00 | 0.02 | 0.05 | | ERROR | ERROR | 0.00 | 0.00 | 0.00 |
| HVE | 12.00 | 0.03 | 0.06 | 8.00 | 0.06 | 0.19 | | ERROR | ERROR | 1.00 | 0.01 | 0.05 |
| | 203.00 | 0.49 | 150.25 | 42.00 | 0.40 | 48.46 | 0.00 | ERROR | 0.00 | 22.00 | 0.19 | 33.00 |
| SAC | 1.00 | 0.00 | | 1.00 | 0.01 | | | ERROR | | 1.00 | 0.01 | |
| SAL | 34.00 | 0.08 | | | 0.00 | | | ERROR | | 1.00 | 0.01 | |
| SAS | 1.00 | 0.00 | | 1.00 | 0.01 | | | ERROR | | 2.00 | 0.01 | |
| WIL | | 0.00 | | | 0.00 | | | EPROF | | 0.00 | 0.00 | |
| WVB | | 0.00 | | | 0.00 | | | ERROR | | 0.00 | 0.00 | |
| TRA | | 0.00 | | | 0.00 | | | ERROR | | 0.00 | 0.00 | |
| UNT | 76.00 | 0.14 | | 16.00 | 0.13 | | | ERROR | | 41.00 | 0.25 | |
| | 112.00 | 0.21 | 84.00 | 18.00 | 0.15 | 20.77 | 0.00 | ERROR | 0.00 | 45.00 | 0.26 | 67.50 |
| TOTAL | 555.00 | | | 122.00 | | | 0.00 | | | 163.00 | | |



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